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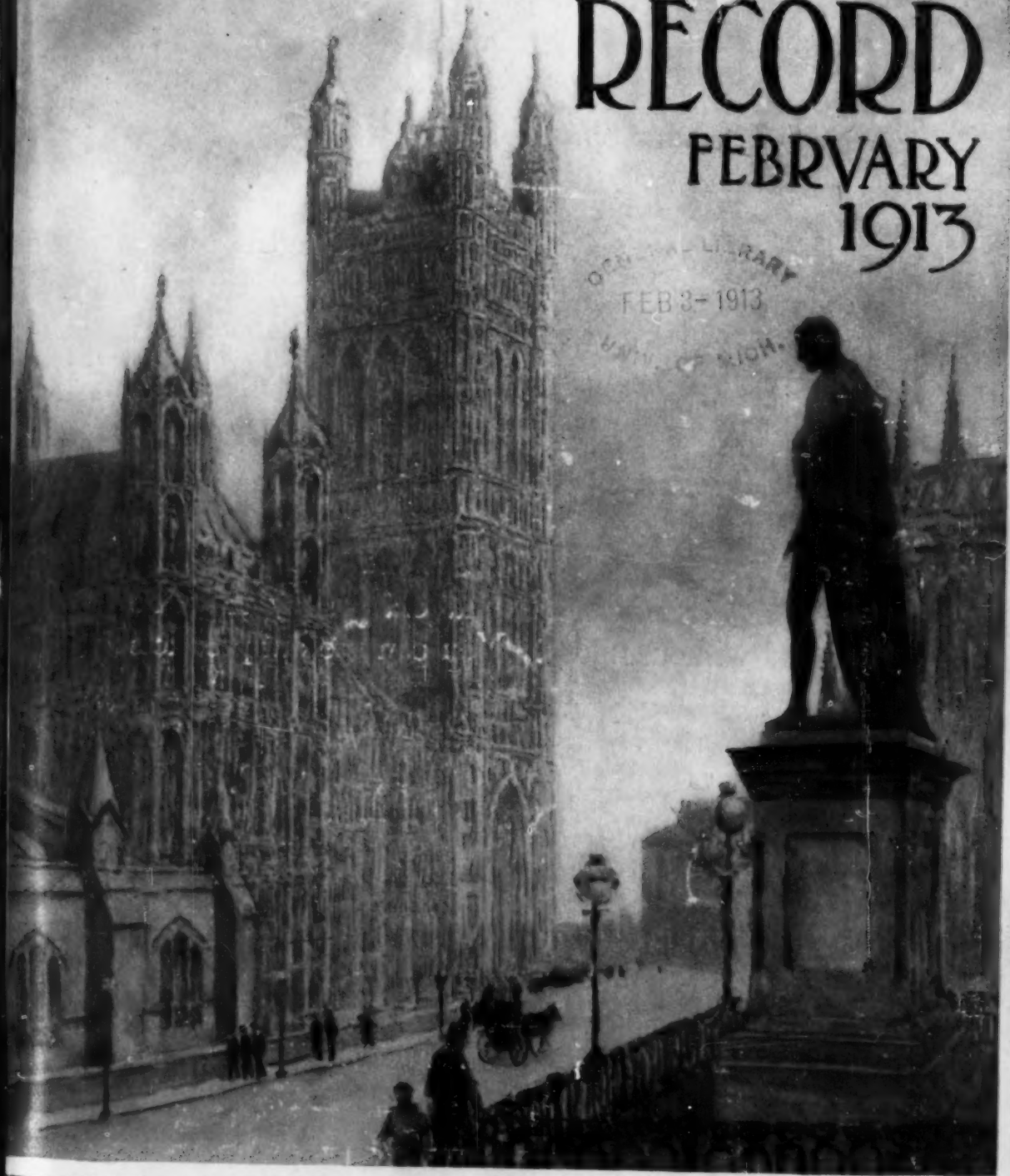

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THE ARCHITECTVRAL RECORD

VOL. XXXIII
No. II

SERIAL NO.
173

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for FEBRUARY, 1913

PVBLISHED MONTHLY BY
THE ARCHITECTVRAL RECORD COMPANY
11-15 EAST TWENTY-FOVRTH STREET, NEW YORK

F. W. DODGE, PRESIDENT
F. T. MILLER, SEC. & TREAS.

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YEARLY SVBSCRIPTION
VNITED STATES, $3.00
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SINGLE COPIES, 25¢

ENTERED MAY 22, 1902, AS SECOND CLASS MATTER AT NEW YORK, N.Y.

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THE WOOLWORTH BUILDING, NEW YORK CITY.
CASS GILBERT, ARCHITECT.

· THE ·
ARCHITECTVRAL
RECORD

Volvme XXXIII. FEBRVARY, 1913 Nvmber II.

"THE TOWERS OF MANHATTAN"

AND NOTES ON THE WOOLWORTH BVILDING

BY MONTGOMERY SCHVYLER

"RECORDS" IN ALTITUDE are precarious and fleeting, almost ephemeral. Astonishing as it now appears, the Park Row Building, not so very long ago, held the record, and probably held it longer than any subsequent erection. The New York *Times* occupied its building in the first year of the new century, and was fain to boast that its edifice "scraped higher clouds" than any other skyscraper in New York. Being interpreted, the boast meant that although the actual altitude of the building from the sidewalk was less than that of the still record-holding Park Row, it stood on so much higher ground as to reach further into the empyrean. And then came the Singer, holding precariously its eminence. And then the Metropolitan, climbing indisputably "some fathoms further into the ancient region of night" and taking in turn its distinction of being the "tallest inhabited building in the world," and the next in height to the skeleton of the "Tour Eiffel." And now the modern Titan takes another upward shoot in the Woolworth, with the tower a good head and shoulders above that of the Metropolitan, still further overpassing the Singer and, unfortunately and incidentally, "blanketing" that former giant, now reduced, as you may say, almost to moderate stature.

How long will this now new record hold? What next? Truly, what is the limit? It is very clear that the limit is

The foremost of the earlier towers of Manhattan.

THE TIMES BUILDING, NEW YORK CITY.
C. L. W. EIDLITZ, ARCHITECT.

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The clear height of the Singer Tower is screened by the mass of the City Investing Building.

THE SINGER BUILDING, NEW YORK CITY.
ERNEST FLAGG, ARCHITECT.

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A photograph taken at night by the light from the offices.

THE SINGER BUILDING, NEW YORK CITY.
ERNEST FLAGG, ARCHITECT.

commercial, not technical. In the absence of restraining laws, every projector of a building built for profit will carry it as high as he thinks it will pay him to carry it. And among real estate speculators, among architects, among engineers, you will find a new opinion with every new expert you ask. "Quot homines, tot sententiae." Possibly the Woolworth may retain its preëminence for a decade, possibly it may lose it next year. The sudden upstart of Jonas' gourd or Jack's beanstalk is nothing to the swiftness of these latter uprisings. They shoot up "while you wait."

Meanwhile the competition is not only commercial, but in a measure artistic. No Gradgrind of a projector would dare to attack "the record" without some thought as to how his record beater was going to look. And probably there is no cultivated and ambitious architect, even though as yet "no man hath hired him" to do a skyscraper, who does not carry around in his mind, and in his leisure moments fondle, some idea of the skyscraper he would like to build. When he actually "lands the job" he may find that the necessary concessions to practicality leave the idea hardly recognizable to himself, and not at all recognizable to "the man in the street." The practical requirements in every case issue, as to the body of the building, in an almost identical result, that is to say, a parallelopiped with the minimum of supports or

THE TOWER OF THE METROPOLITAN LIFE INSURANCE COMPANY, NEW YORK CITY. N. LE BRUN AND SONS, ARCHS.

Built shortly after the Singer Tower, and exceeding it in height.

Copyright by Underwood & Underwood.

"solids" and the maximum of "voids" or windows. It is only in the sky-line, in the upper termination, that he has, as an artist, a real chance. It is at any rate in the towers that the difference between architect and architect most clearly appears, and hence a comparison of the most distinguished and remarkable of these terminal features, such as that for which our illustrations supply the material, ought to be instructive and interesting. The Times tower, the Singer tower, the Bankers' Trust, the Municipal Building, the Metropolitan Life, and now this soaring Woolworth are undoubtedly among the most interesting of our experiments in skyscraping.

There is among these an initial and obvious distinction. Our tall building is in fact a frame building. Some architects endeavor to express that primary fact, and some find it more convenient to ignore it. The difficulty in expressing it lies in the circumstance that the actual structure, the steel skeleton, must be overlaid, and in part concealed. A writer who had adduced the Singer Building, not that of the tower, but the Singer Building in Broadway near Union Square, as "the logical skyscraper" was taken sharply to task by another writer, who insisted that the exposure of the metal frame was not "logical" at all. It was, all the same, in theory, although in practice the consensus of architects is that the frame must be enveloped, or wrapped, with incombustible material for security against fire. The writer of the article on Architecture in the Encyclopaedia Britannica, being unaware of this fact assumes that the masonry envelope is added "for appearance sake," and thereby goes far to vitiate his critical comments. The difference is none the less fundamental between the assumption that the envelope or screen is a real wall of masonry which carries itself, and the acknowledgment in the design that it is only an envelope and the endeavor to express the actual structure behind it. Of the towers which we illustrate, the Metropolitan, the Bankers' Trust and the Municipal Building evidently proceed upon the former assumption. The Times tower may be called a compromise. Its substructure assumes the reality and self-support of the visible wall, but in the tower itself the fact of a frame is unmistakably conveyed and powerfully expressed. The architect of the Singer tower has also managed to convey this same sense of the skeleton behind the padding by artful devices such as the variation in material and color, and the lightening and opening of the fenestration at the centre, in comparison with the solidity of the outer piers so as to denote that the central part is not a wall, but a mere screen quite incapable of supporting itself. Of all the buildings in our list, the Woolworth most unmistakably denotes its skeleton. Nobody could possibly take it for a masonic structure. The uprights of the steel frame are felt throughout and everywhere, while the device of tinting the "transoms" and of carrying through at intervals the transverse bands around the building shows that the uprights are tied together and gives a grateful sense of a security very different from that which is obtained by the apparent immobility of the mass and weight of masonry.

It will be admitted that all these towers are shapely, worthy of the attention which they compel, credits to their designers, ornaments to the city, and the variations in detail following the several notions of the architects are sources of additional interest. "There are differences of operation, but the same law." "The law" is that in a building of which the utility is the justification, all the space shall be utilized to the utmost. Of the towers we are considering, that of the Metropolitan doubtless comes the nearest to complying with "the rigor of the game." Even its steeply sloping roof is divided into visible and tenantable stories. There is no superfluity excepting the actual finial of the crowning member. Even this has its justification as a "belvedere." We believe it has actually made money as an "outlook." If not, it evidently might do so. What one chiefly quarrels with, in the design of the Metropolitan tower, is that "die" continuing the rectangular shaft in a rather shrunken state through the loggia, with its graceful arcades and vigorous shadows. Up to that point the

Photograph by Johnston & Hewitt.
The tower of the Singer Building is visible in the distance.

THE BANKERS' TRUST BUILDING, NEW YORK CITY.
TROWBRIDGE AND LIVINGSTON, ARCHITECTS.

Photograph by Johnston & Hewitt.
The smoke-stack of the building is carried out at the apex of the pyramidal roof.

THE BANKERS' TRUST BUILDING, NEW YORK CITY.
TROWBRIDGE AND LIVINGSTON, ARCHITECTS.

Photograph by Underwood & Underwood.

A towering city office building which bridges over Chambers St.

THE MUNICIPAL BUILDING, NEW YORK CITY.
McKIM, MEAD AND WHITE, ARCHITECTS.

composition is very satisfactory and engaging, but if the shaft had been lifted in its full dimensions by the number of stories included in what we have called the "die" and the slanting roof thereon immediately superposed, we think that the dignity of the monument would have been much enhanced. Certainly its aspect would have been more commanding in any distant view over the roofs to the eastward. And indeed from any view the "die" does not account for itself. It is either too important or not important enough, and seems to have been injected from an insufficiently discriminating following of precedent or from a misleading analogy of proportion. The plain pyramidal roof of the Bankers' Trust more fittingly "crowns the work." The interior of this pyramid, blinded as it is by the solid sloping walls to outer light and air, may look like a sacrifice of utility to architecture, which in these edifices is not permissible. But in fact one understands that this interior has been found available and profitable as a place of storage, or "archive." An interesting design was shown some years ago in which the pyramidal roof was terraced or "stepped," each step being in fact a story furnished with windows and obviously habitable. Perhaps this may be the next development. In the Times tower, which remains one of our best achievements in this kind, the need of a sloping roof by way of protection is frankly disavowed, as indeed with modern construction it is superfluous. The experience of all these centuries has shown it to be superfluous, even in the case of the Campanile of Giotto, the prototype of the Times tower, which the later architect has manipulated to so admirable a result. In the Municipal Building the rigor of the prohibition against the devotion to architectural effect of space which might otherwise be available for occupancy has plausibly been held to be relaxed. This is not only an "office building," which for the most part it very strictly is, and to the conditions of which, for the most part, it very strictly conforms. It is also a civic monument. Hence the designer has held himself free, after he had worked clear of the roof, to produce a purely decorative object. This the tower distinctly is; and moreover, one can imagine that all its stages up to the actual finial are available for occupancy or storage.

The Woolworth Building is in this respect not quite in the same category. For this is a distinctly utilitarian erection, to be justified of its utility, or not justified at all. It may, and indeed almost must, recede as it rises, but the recessions as well as the main mass must be not only "built to the limit" but occupied and made to pay to the limit. Those who remember the design for it as first published will remember how loyally, how almost brutally, this condition was therein fulfilled. Compared with the actual work, the stark mass which resulted from that first consideration was crude and "lumpy." It was the second recession of the upper stages, together with the elaboration and the lightening of the detail, which has converted it into the thing of beauty which we now thankfully recognize. The achievement of this result involved a similar recognition on the part of the client who must have sacrificed some space and added much enrichment of this crowning feature with his eyes wide open. The tower commemorates his sense of civic obligation, as well as the inventiveness and the sensibility of his architect.

DETAILS OF THE WOOLWORTH BUILDING.

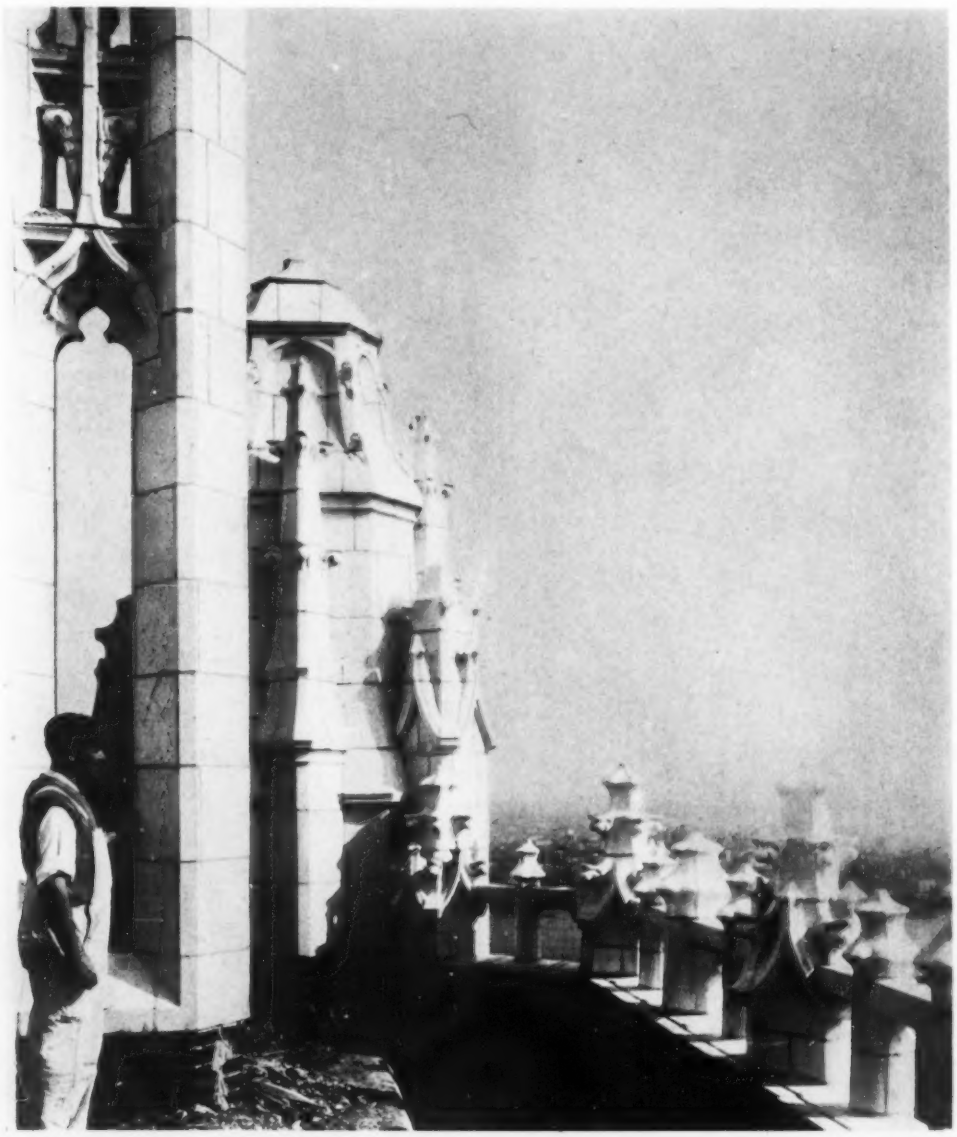
The introduction into general use in this country of terra cotta as a decorative material is hardly more than a generation old. One of the lessons of the Chicago fire of 1871, reinforced by the Boston fire of the following year was, as everybody interested in the subject knows, that unprotected metal supports could not be trusted to retain their shape, nor their supporting power, in the heat of a fierce conflagration. Soon after the fires in question, experiments began in adjusting to the supports protective envelopes of baked clay. The use of terra cotta, thus began, was extended by the establishment of one or two firms which made a specialty of terra cotta cornices, as a cheaper substitute for stone, as a

Photograph by Tebbs-Hymans, Inc.

THE WOOLWORTH BUILDING, NEW YORK CITY.
CASS GILBERT, ARCHITECT.

The tallest office building in the world, 55 stories high exclusive of the pointed roof.

more efficient and durable substitute for sheet metal. This was by no means the first experiment in the decorative use of terra cotta. Long before the great fires mentioned, in the sixties, even in the fifties, terra cotta had been decoratively employed. It was so employed in the old Trinity Building, designed by the elder Upjohn and facing Trinity Churchyard in New York. It was so employed at about the same time or perhaps even earlier, in the cornice of the "Tontine Coffee House," near the foot of Wall Street, designed by Renwick. But these



Photograph by Tebbs-Hymans, Inc.

DETAIL AT THE 42D STORY, THE WOOLWORTH BUILDING, NEW YORK CITY.
Cass Gilbert, Architect.

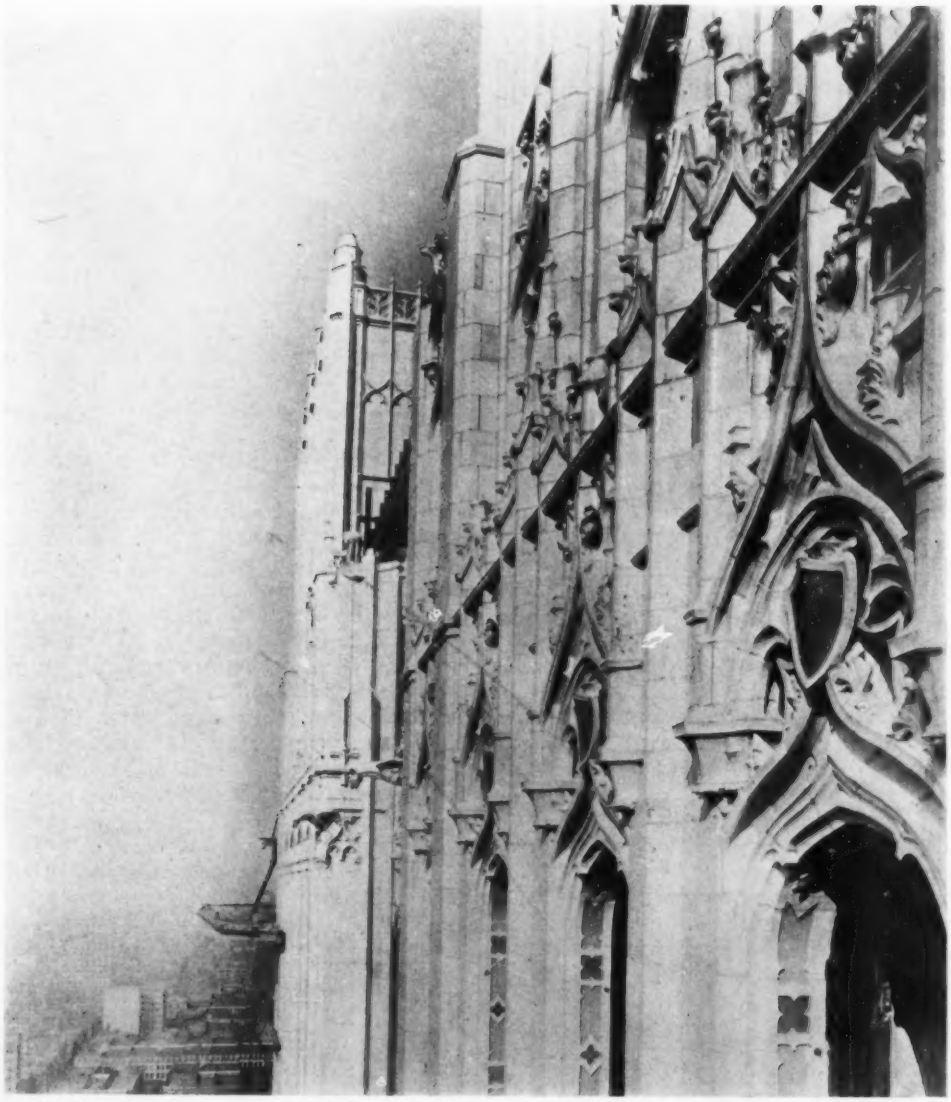
experiments remained fruitless. It was in the early eighties, and almost coincidently with the introduction of the steel frame, that the manufacturers began to offer, and the architects to avail themselves of terra cotta adapted to an extensive system of enrichment. The front of a little brick chapel at the corner of Lexington Avenue and Twenty-third Street, by Messrs. Le Brun, demolished a year or two ago, was noteworthy for the elaborate treatment of its front in terra cotta. This elaboration in effect constituted the entire architectural interest of the front, or of the building. It was further noteworthy as being unmistakably intended for its material, whereas most architects who employed the material in those early days used it as simply a cheaper substitute for stone, and in altogether lithic forms. There was a charming and characteristic use of terra cotta, and of terra cotta admirably executed as well as designed, in a building designed by Mr. Hardenbergh for the Western Union Company, at Broadway and Twenty-third Street, which still stands, but has been so mauled and painted over by subsequent possessors as to have been deprived of much of its interest.

When the steel frame came in, the use of terra cotta instead of stone as the main material of the exterior as well as of the interior was imperatively indicated, not only by the cheapness of the material in the comparison, but by its superior adaptability to the expression of the construction. It is true that not all or most architects of skyscrapers showed much interest in attaining a characteristic and expressive treatment. Perhaps the majority do not show this desire even yet. But for the expression of a frame which must be wrapped to protect it from the elements, it is clear that great advantages are offered by the use of a material originally plastic, which can be moulded so as to conform to the structure which it at once conceals and reveals, and by which the columns can be tightly "jacketed," over a material which must be painfully and wastefully cut into the desired shapes, and which in fact is not commonly adapted to the actual structure artistically, but only adjusted to it mechanically, purporting to be an actual and self-carrying wall of masonry.

It will not be disputed that the great architectural success of the Woolworth Building is eminently the success of an expressive treatment. Can one imagine an equal success to have been attained, either structurally or decoratively, under any practical conditions, by the use of a material originally non-plastic? It could have been attained in stone at all only by doing a violence to the material. Consideration of this violence, and of the waste of material and of labor which it would involve, in truth goes far towards justifying the architect who, having chosen stone for his surfacing, chooses to ignore his essential structure altogether and treat his envelope as a smooth stone wall. And the case is as clear with respect to the decorative features which form the subject of the remarkable series of photographs which we have the pleasure of herewith presenting. The taking of them, from temporary scaffoldings at the levels of the details photographed, scaffoldings now removed, was itself a notable achievement in photography. "It never can happen again." To get the same effects, the visitor must repeat Tennyson's experience at Milan, an experience which will be vividly recalled to the poetical reader by the contemplation of these photographs:

> I climbed the roofs at break of day:
> Sun-smitten Alps before me lay.
> I stood among the silent statues,
> And statued pinnacles, mute as they.

One of the chief successes of the Woolworth, all will agree, is its success of "scale." This is emphasized and elucidated by these close views of the culminating detail. The "man in the street" can hardly help observing the distinctness and sharpness of the outlines of the canopies and arcades so many hundred feet above him. If a student of architecture, even while admiring the skill with which the scale has been held in mind, and what to him looks like a delicate and elaborate embroidery adjusted to its position, he will be prone to apprehend that when seen close at hand



Photograph by Tebbs-Hymans, Inc.

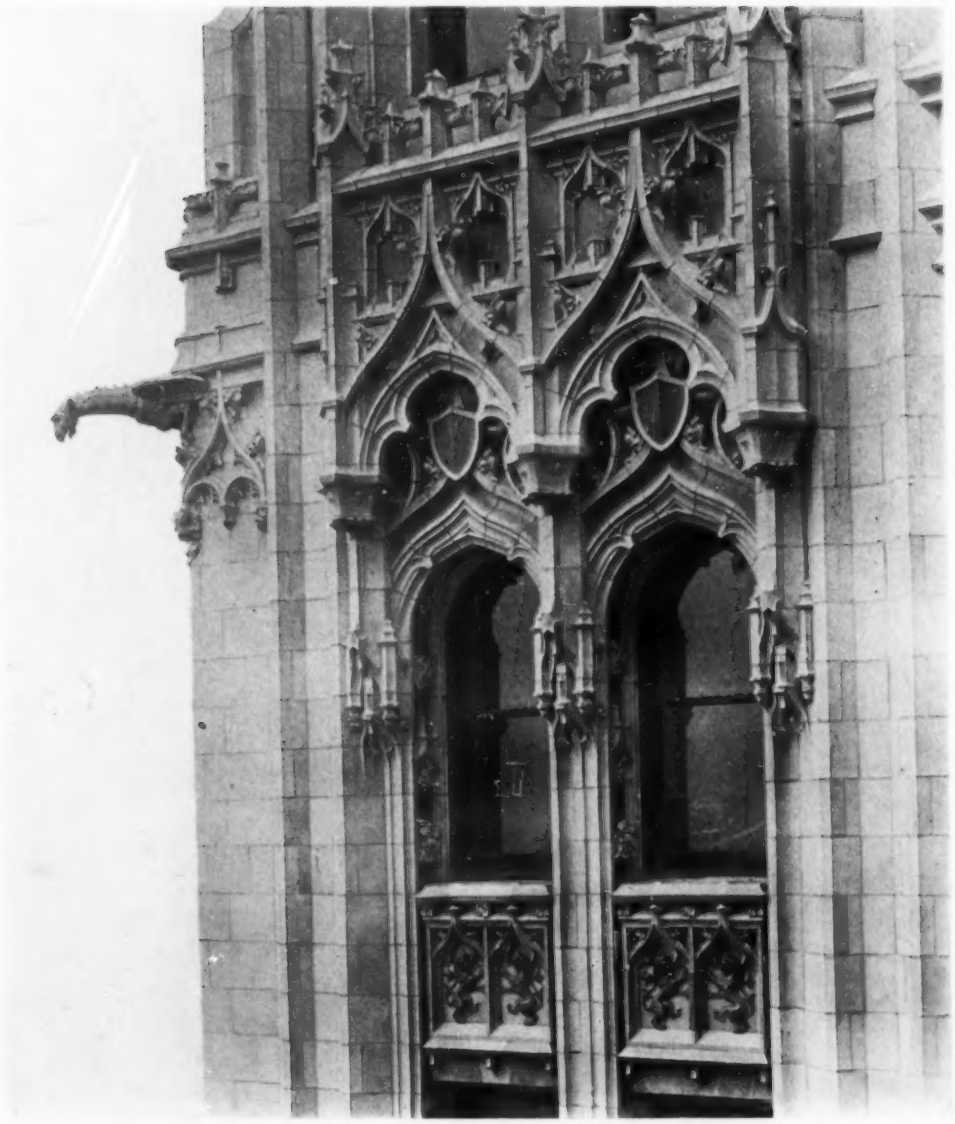
DETAIL AT THE 38TH STORY, THE WOOLWORTH BUILDING, NEW YORK CITY.
Cass Gilbert, Architect.

it must become gross and crude in effect. The near view, whether in fact or in these photographs, undeceives him on this point, and shows him that some more subtle process of adjustment than mere magnification has been at work. All this decoration, when looked at from its own level, seems to have been designed to be looked at from that level. Take the flying buttress, take the canopied arcade, take the finials, and you find that the process by which they are made to take their places as properly here as from the sidewalk, has by no means been a process of mere "monstrification." It is much subtler than that. It includes consideration of projections and recessions, of depths and detachments, of lights and shadows. One perceives also the effect of the color applied to the plane sur-

Photograph by Tebbs-Hymans, Inc.
DETAIL OF FLYING BUTTRESS AT THE 42D STORY, THE WOOLWORTH BUILDING.
Cass Gilbert, Architect.

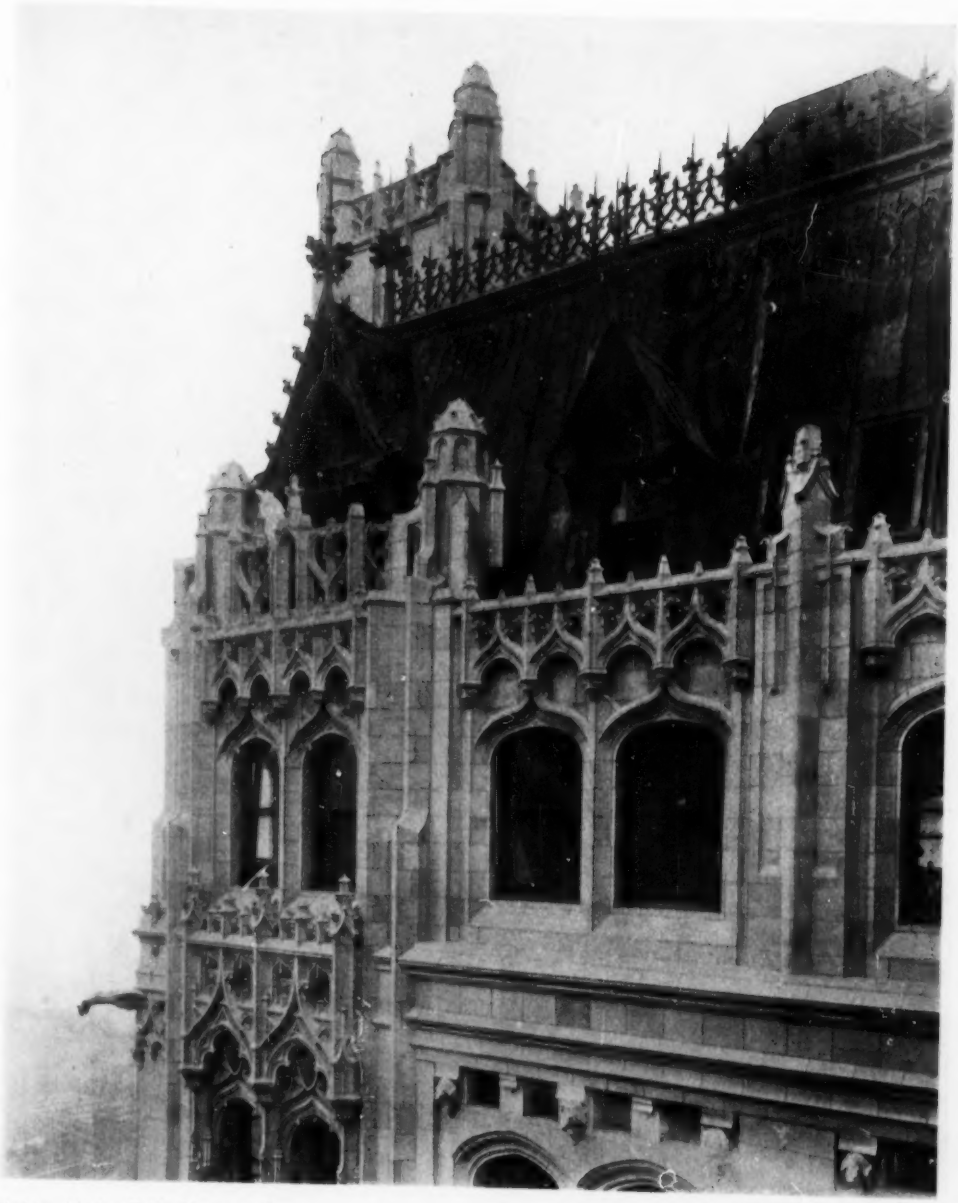
faces. As color it hardly counts from below, but as a means of detachment and clarification it counts emphatically in the distant view. And in the near view, take such a feature as the doubled window at the angle, with that grotesque gargoyle—from Notre Dame de Paris, is it?—protruding just beyond it. There is nothing in the photograph, nor in fact, to suggest that it would not be perfectly in place, so far as its scale goes, if it were meant to be habitually and exclusively seen on a level with the eye of the passer in the street.

All this is an unusual success. But the artistic quality of this detail is at least as remarkable as its adjustment. One would like to know what a scholarly



Photograph by Tebbs-Hymans, Inc.
DETAIL AT THE 27TH STORY, THE WOOLWORTH BUILDING, NEW YORK CITY.
Cass Gilbert, Architect.

and academic European Gothicist would have to say to it, or to such of it as does not "give itself away" in the photograph as part of a modern, commercial, many-storied building, considering it merely as "Gothic." One has seen photographic "bits" of famous minsters in comparison with which this brand new American Gothic loses nothing. Far be it from us to use the success of this detail as a means of reopening the Battle of Styles. But one can hardly refrain from asking himself whether a success comparable with that of the latest and greatest of our skyscrapers can be attained within the repertory of our Parisianized architecture. If so, one would delight to see it produced and to celebrate it accordingly.



Photograph by Tebbs-Hymans, Inc

DETAIL AT THE 28TH STORY, THE WOOLWORTH BUILDING, NEW YORK CITY. CASS GILBERT, ARCHITECT.

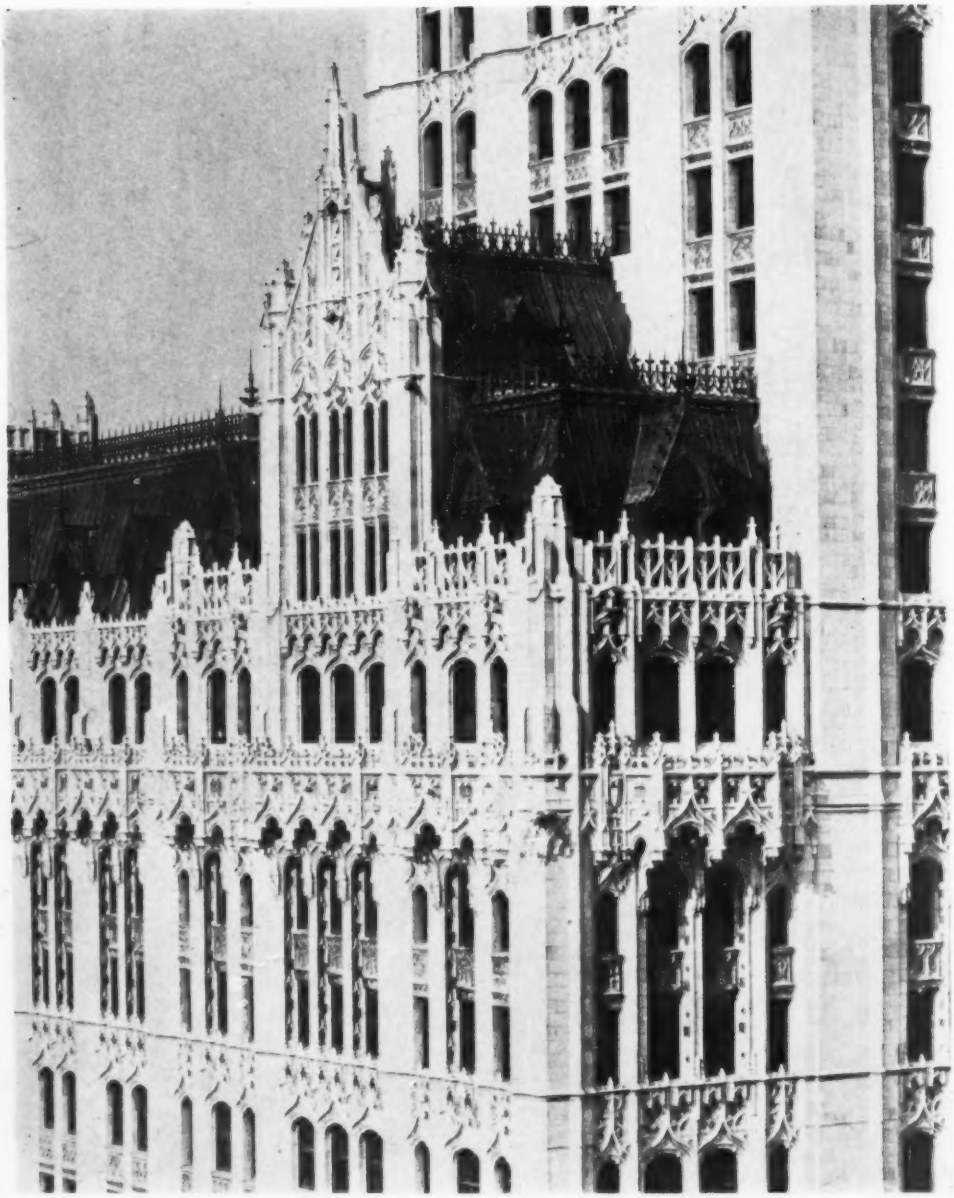
Photograph by Tebbs-Hymans, Inc.

The Terra Cotta here shows six colors. Below is a glimpse of the new Municipal Building.

DETAIL OF WINDOW JAMB AT THE 47TH STORY, THE WOOLWORTH BUILDING, NEW YORK CITY. CASS GILBERT, ARCHITECT.

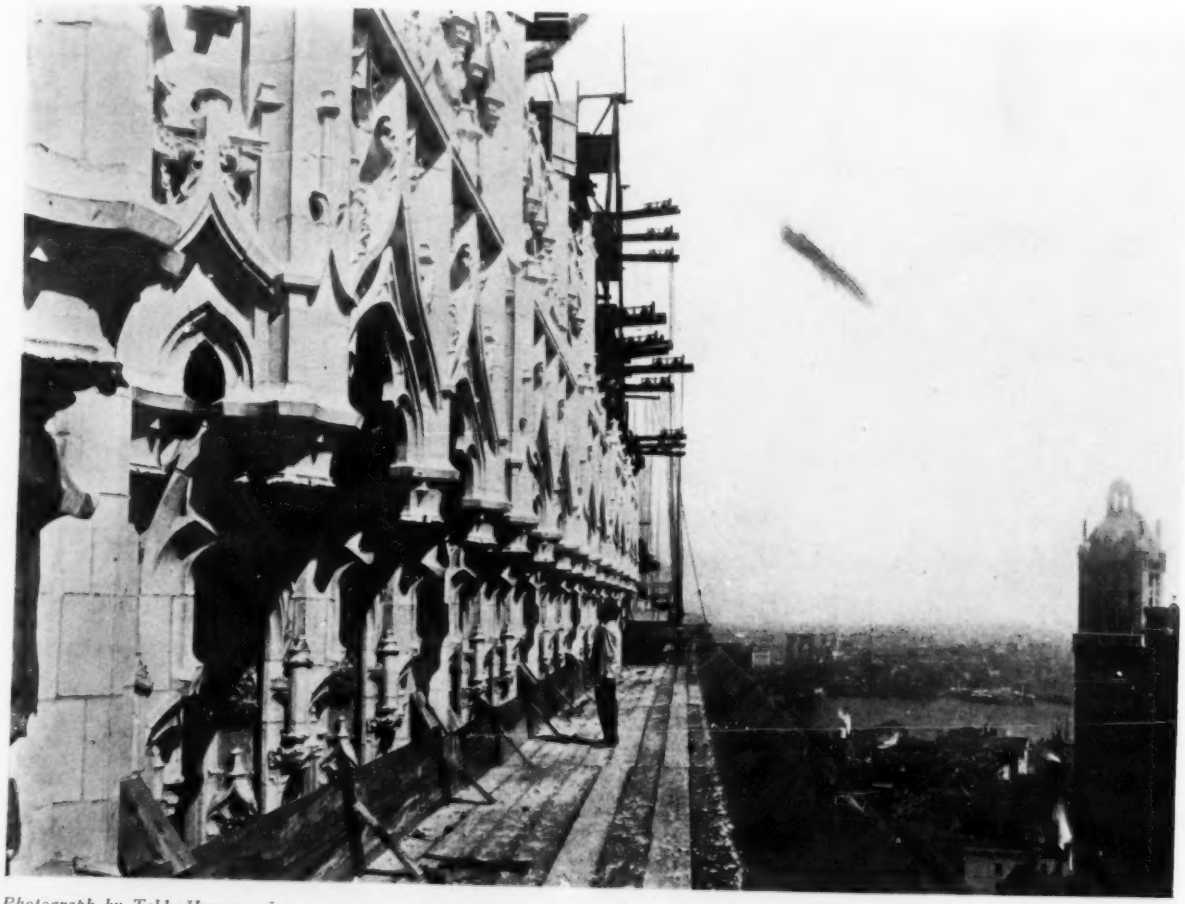
Photograph by Tebbs-Hymans, Inc.

DETAIL AT THE 51ST STORY, THE WOOLWORTH BUILDING, NEW YORK CITY. CASS GILBERT, ARCHITECT.



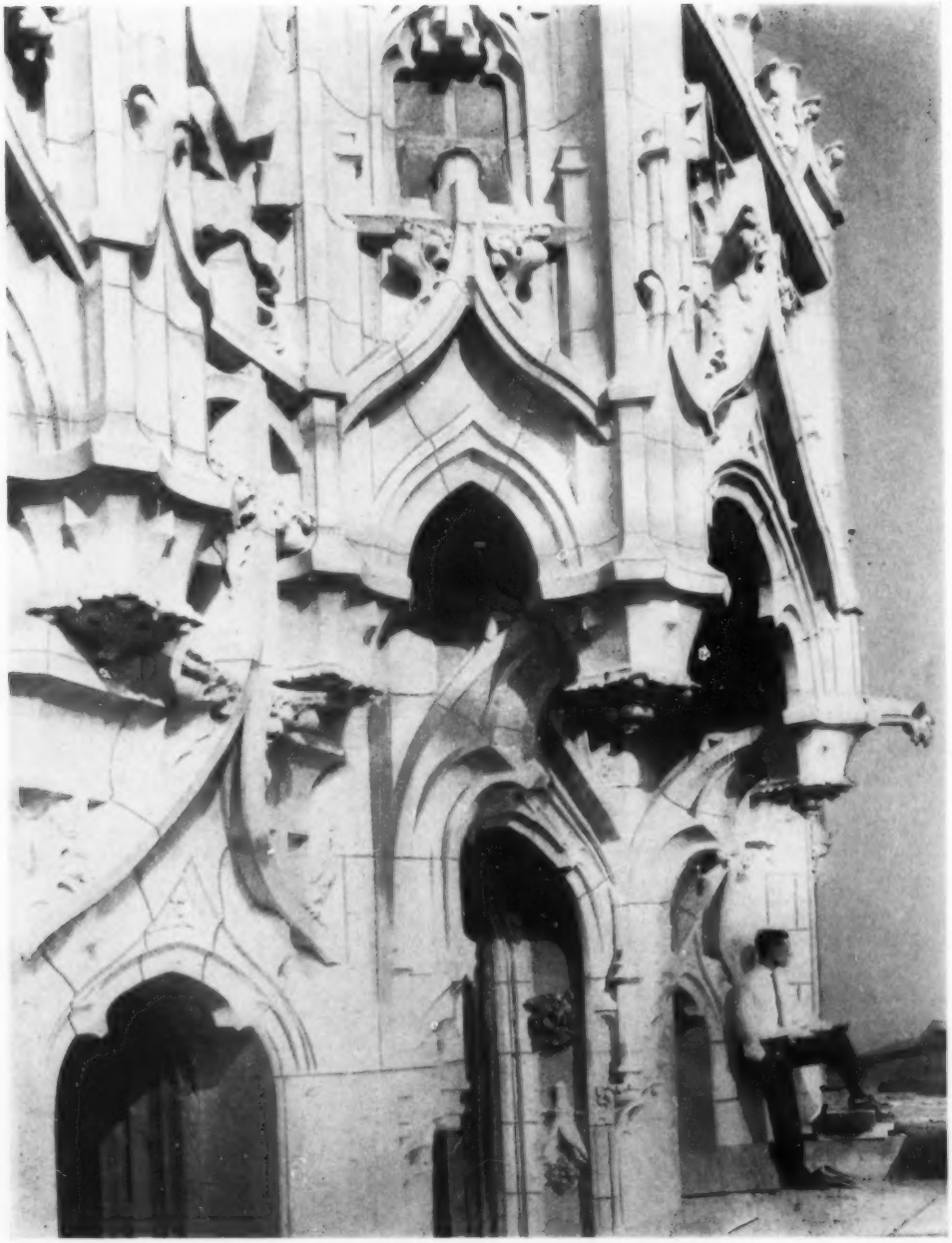
Photograph by Tebbs-Hymans, Inc.

MAIN GABLE, THE WOOLWORTH BUILDING, NEW YORK CITY. CASS GILBERT, ARCHITECT.



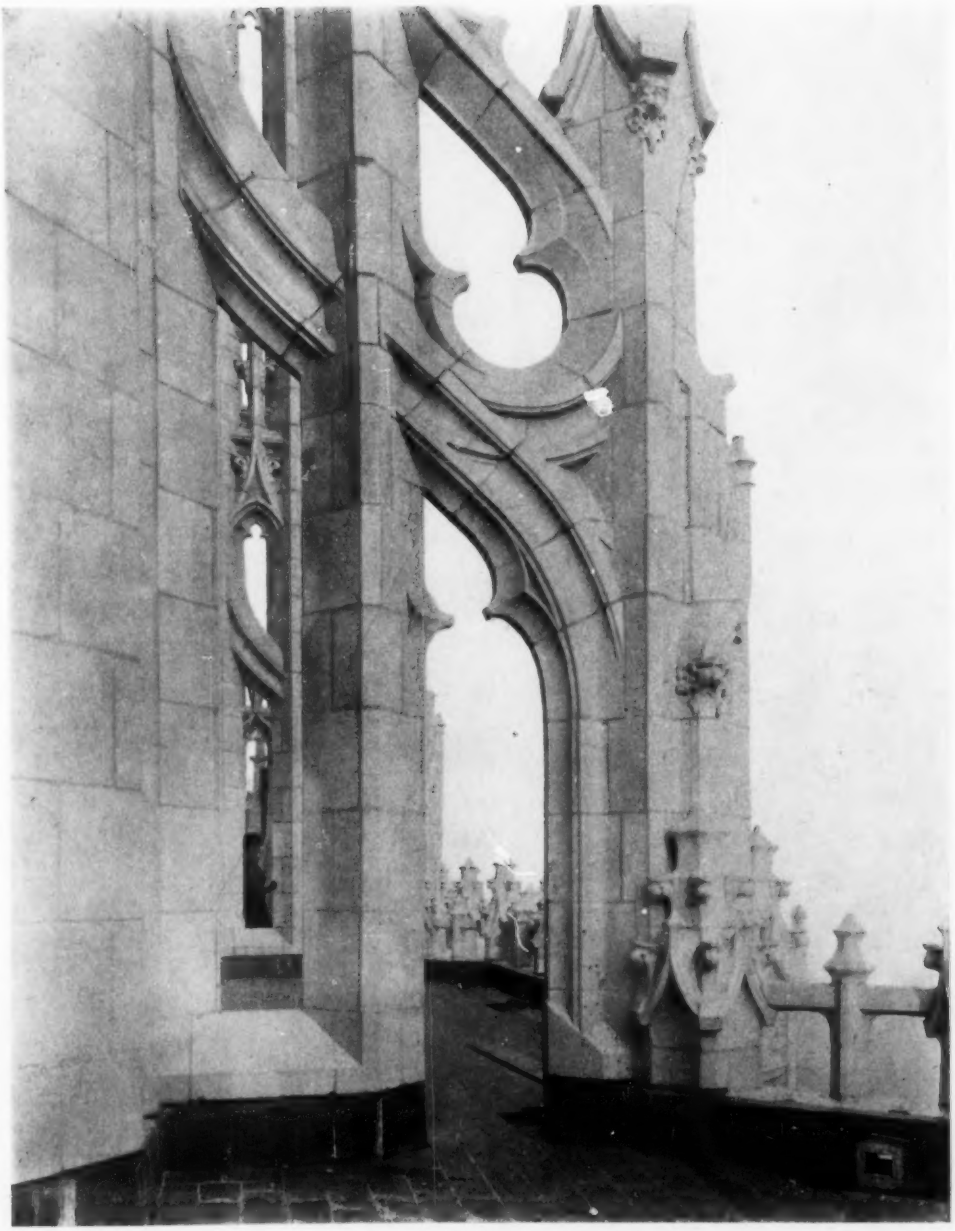
Photograph by Tebbs-Hymans, Inc.

CANOPY AT THE 27TH STORY, THE WOOLWORTH BUILDING, NEW YORK CITY. CASS GILBERT, ARCHITECT.



Photograph by Tebbs-Hymans, Inc.

DETAIL AT THE 27TH STORY, THE WOOLWORTH BUILDING, NEW YORK CITY. CASS GILBERT, ARCHITECT.



Photograph by Tebbs-Hymans, Inc.

DETAIL OF FLYING BUTTRESS AT THE 42D STORY,
THE WOOLWORTH BUILDING, NEW YORK CITY.
CASS GILBERT, ARCHITECT.

Photograph by Tebbs-Hymans, Inc.

DETAIL OF WINDOWS AT THE 47TH FLOOR, THE WOOLWORTH BUILDING, NEW YORK CITY. CASS GILBERT, ARCHITECT.

A FARM HOUSE NEAR ELY.
From a pen sketch by Walter S. Schneider.

A BICYCLE TRIP THROUGH ENGLAND WITH ARCHITECTURAL NOTES.

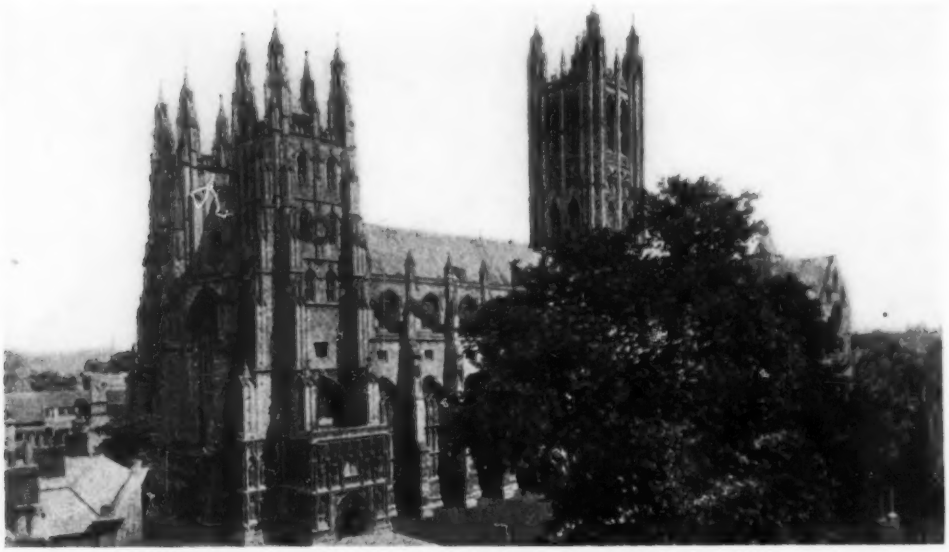
By WALTER SCHNEIDER.

THE PROBLEM, from an architectural viewpoint, of selecting the most interesting countries for a trip of this kind, to be completed within a limited time, of, say—well—five months, brings in its train many smaller problems. But in selecting England, France, and Italy, as the field of exploration, I think that no mistake is being made. Not only are the roads in these countries in good condition, but to the students of monumental architecture they offer the most interesting example.

The route that I followed began at London and extended northwards through St. Albans, Cambridge, Ely and Peterborough, to Lincoln. From Lincoln, I went westward to Litchfield, and then southward through Stratford-on-Avon, to Oxford, Salisbury and Winchester. From Winchester, I went to Southampton, whence I took the boat to Havre; from Havre I followed the road which led to Rouen, Evreux and Paris.

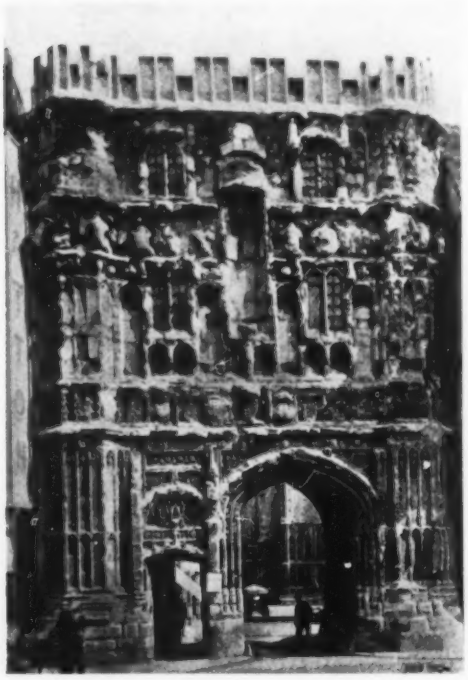
While residing in Paris I had visited the "environs" and had also made a train trip through the northern cathedral cities of France, embracing the palace at Compiegne, and the cathedral towns of Soissons, Rheims, Laon, Amiens and Beauvais.

So now, on leaving Paris, I went southwest through Chartres, then southeast to Orléans, and from there through the chateaux country along the river Loire. Below Orléans I visited Chambord, Cheverny, Blois, Chaumont, Amboise, finally arriving at Tours. With Tours as headquarters, I made a circu-



CANTERBURY CATHEDRAL, ENGLAND.

lar trip through Langeaise, Ussé, Chinon, Azay-le-Rideau, and Villandry, returning to Tours before going East.



DETAIL OF CHRIST CHURCH GATE, CANTERBURY, ENGLAND.

Then came Chenonceaux, and the chateaux country was being left behind me when I entered Nevers and Bourges. From Bourges my route lay almost due south through Moulins, Vichy, Clermont-Ferrand and Le Puy. Then leaving the mountains of Auvergne, I headed for Lyons. Then south again through Valence, Orange, Nimes, Arles and Avignon, to Marseilles.

The last part of my journey along the Mediterranean coast of southern France was nearly perfect in its beauty and interest. My road followed the coast line continually, always within a stone's throw of the water. The places passed through on this road were Toulon, Hyères, St. Raphael, Fréjus, Cannes, Nice, Monte Carlo, Monaco and Menton. Here I crossed the Italian border and continued my journey through the towns of the Italian coast to Genoa, where I ended my long tour by bicycle. My Italian journey I made by train.

There are many students of architecture who are ambitious to cross the ocean, and, even though they may not study abroad, to at least see for themselves many of the wonders of Old World art and architecture which they have heard of so often, and of which they have seen photographic reproduc-

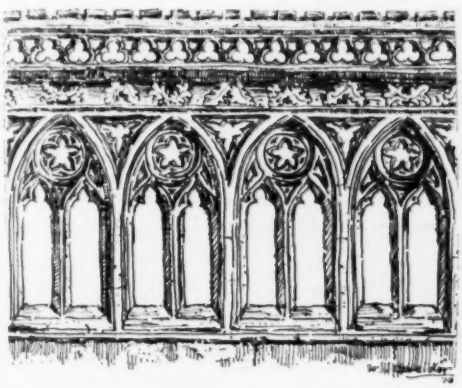
ELY CATHEDRAL, FROM THE MEADOWS.

tions. I, also, had this same desire, and my experiences and travels may prove of use to others who have not yet been to Europe, but who cherish the hope of going there.

After having been a student in Paris for eight months, and my time allowance abroad nearing its completion, I decided to travel, having a strong desire to see a bit of Europe before returning to the United States and the every-day grind of professional life.

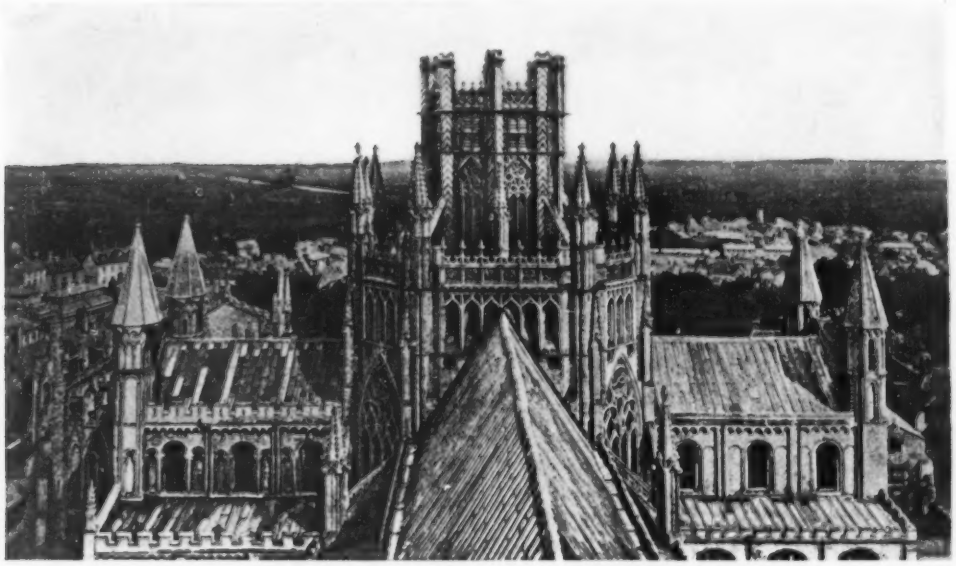
The decision to travel, was, however, but the first and easiest step towards the accomplishment. I wanted to travel in such a way that I would be able not only to cover an interesting section, but —the great question now arose which faces most young men with desires similar to my own— how to keep expenses at a minimum? Train travelling, though not expensive, was nevertheless, more than I could pay during a protracted tour. A motorcycle, while very good in a way, would, together with repairs, fuel and great initial cost, amount to more than train fare—especially as I doubted that I could dispose of the vehicle after I had finished my trip. The solution of the problem seemed to lay in a bicycle.

In Europe, unlike the United States, the bicycle still holds the high place among vehicles and the sports to which it is justly entitled. In each country there are numerous associations and clubs whose object is to promote the sport of cycling and kindred sports. And, after investigating as to which club offered the greatest advantages to one in my position, I enrolled in the Touring Club of France.



DETAIL OF PRIOR DE ESTRIA'S SCREEN, CANTERBURY.

The entrance fee to this club is but 6 francs ($1.20), and there are many advantages to be derived in joining the organization. Club members are allowed to take their



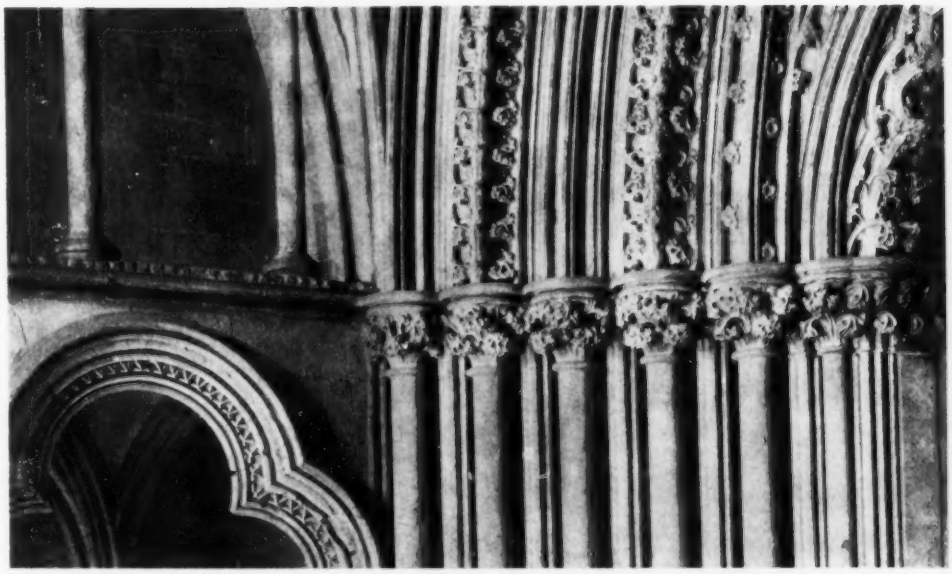
"THE OCTAGON TOWER," ELY CATHEDRAL, ENGLAND.

DETAIL OF DOOR, BISHOP WEST'S CHAPEL, ELY CATHEDRAL.

bicycles into any country duty free, they can save ten or fifteen per cent. on any repairs, and about the same on hotel expenses at authorized Touring Club hotels. Of these, one at least can be found in any town, however small, throughout France, and almost as frequently in other countries. Road maps and guide books with the lists and rates of these hotels can be obtained from the Touring Club at a very small cost.

Early in May I was ready to start my wanderings. England was the first country I had elected to visit, as it is most beautiful during that month. I had planned to go to London by rail and there to procure my traveling necessities for the bicycle trip. So on leaving Paris I went directly to Canterbury by boat and train and there spent the night and the following day.

Canterbury is a town full of pleasant surprises to the student of architecture. The beautiful cathedral is, of course, always accorded first place, but there are many other interesting works, including the old Norman Stairway, the donjon, the West Gate (14th Century), Christchurch Gate and the quaint little church of St. Martin, which is often called



DETAIL OF THE WEST PORCH, ELY CATHEDRAL, ENGLAND.

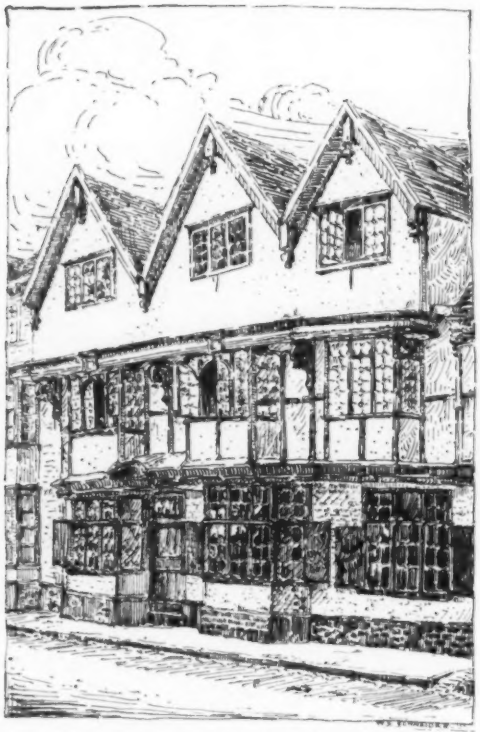
"The Mother Church of England." Then there are numerous monuments of lesser interest.

The present cathedral of Canterbury is the third church built on the same site. Its erection covered a period extending from 1070-1495 A. D., but the exterior appearance of this wonderful structure is in the Perpendicular Style. The interior, though of huge proportions, produces an effect which is wonderfully light and graceful. The choir is one of the longest in England, and is raised several feet above the nave, a peculiarity which occurs nowhere else in England with the single exception of Rochester cathedral.

By good fortune, the day on which I visited the cathedral chanced to be the anniversary of the death of Edward VII. Memorial services were held in the cathedral, attended by the King's Guard and various military functionaries. The effect of the brightly colored uniforms and trappings in the general grayness of the interior produced a charming effect.

Perhaps the most interesting object outside of the cathedral is the fine Norman Stairway which forms the approach to the upper hall of Kings School. This stairway, with its open arcades at the sides, is the only structure of its kind in the country. It presents an appearance of wonderful

DETAIL OF ARCADE IN LADY CHAPEL, ELY CATHEDRAL, ENGLAND.



A HOUSE ON ST. DUNSTAN'S STREET, CANTERBURY, ENGLAND.

sturdiness and is remarkably well preserved.

From Canterbury I took train to London, upon which city I shall make no remarks beyond that it was the initial point of my long trip through three countries. Sufficient information and comments on London are easily to be found, without my adding any remarks to the already adequate desciptions.

Lest anyone take a long bicycle trip on the enthusiasm of the moment, I would here give a word of warning based on my own experience. Though I did not take the journey until after due consideration, yet I failed to a great extent to appreciate the difficulties and exertions of my project. In a spirit of over caution, I had solid rubber tires put on the bicycle, which, while eliminating all tire trouble, added greatly to the weight of my equipment. My bicycle was a machine of American manufacture, with two speeds for hill climbing, mud-guards, lamp, and bag-gage carriers in front and in back. Thus equipped, I left London on the road to St. Albans, filled with enthusiasm, which gradually filtered out, until at the end of the twenty miles of cycling between London and my destination, my mental state was such that I could readily have forsaken the entire enterprise with very little regret. But a good lunch revived me sufficiently to enable me to visit the fine old abbey, now a cathedral, which is much restored, and appreciate its impressiveness.

St. Albans is an old Roman town, a fosse and fragments of an old wall still remaining from the date of the occupation. The abbey, one of the largest churches in England, represents a building period that only terminated in the 20th century, when the building was extensively restored and a new Early English west front added. In the earliest parts of the building, dating from the

TYPICAL BRONZE LAMP ON THE THAMES EMBANKMENT, LONDON.

THE BRITISH MUSEUM, LONDON, ENGLAND.

eleventh century, Roman tiles from Verulamium were freely used.

The interior of the church is in a curious and interesting mixture of Norman, Early English, and decorated styles. The choir is furnished with a painted ceiling dating from the middle of the 14th century, while that of the chancel is nearly a century later in date.

Adjoining the abbey is an old stone gateway, which is the only remnant of the conventual buildings. It is in the perpendicular style, and, while at one time used as a prison, it now forms a part of the school buildings.

St. Albans possesses among its architectural curiosities several interesting buildings of minor interest. Among these may be mentioned the Inn of the Fighting Cocks, which claims to have been built in 795, and the church of St. Michael, which, aside from its antiquity, interests us as containing the tomb of Francis Bacon.

Early the following morning—to be precise, at 6 o'clock—I was on my way to my next stopping place, which was to be Cambridge. My road passed near the famous Elizabethan mansion known as Hatfield House, but the early hour, and the residence of the family prevented my intended visit.

The weather in England has a queer faculty of deceiving the credulous tourist. I was no exception to the rule.

"BIG BEN," THE CLOCK TOWER ON THE HOUSES OF PARLIAMENT, LONDON.

ST. ALBANS ABBEY, ENGLAND.

The early morning had given promise of delightfully cool weather for cycling, but I had not been on the road an hour, when all my doubts of the wisdom of cycling came rushing back upon me, intensified an hundred-fold by a blazing sun, and hills that seemed forever to ascend and never to descend. But all things have an ending, and at last I found myself under the cool shade of the welcoming trees of Cambridge.

Although possessing other features of interest, Cambridge is essentially a college town, and its main interest lies therein. There are seventeen colleges, the majority bordering along the little river Cam.

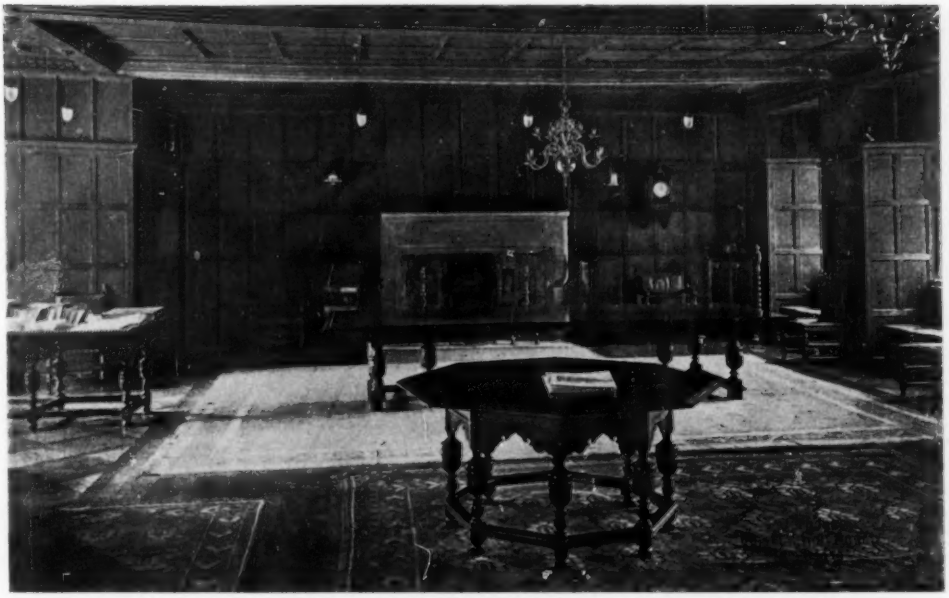
The college buildings of Cambridge, while ruled by the Gothic spirit, feature all styles and kinds of architecture, covering as they do in their erection a period dating from 1284 to 1879. The museum given by Viscount Fitzwilliam, dating 1816, erected in the Greek revival period, and known as the Fitzwilliam Museum, contains many fine canvases, casts, and sculptures, also a very fine model of the Taj Mahal at Agra, entirely constructed in ivory.

The oldest collegiate building in Cambridge is St. Peter's College, known as Peterhouse, dating in its foundation from 1284. It is built around two courts. The chapel (every separate college has its own) is a curious structure in the Italian Gothic style, dating from 1632.

Peterhouse has been greatly changed and added to since its erection—one of its additions being the new hall, on the second court, which contains some very beautiful stained glass by Morris and Burne-Jones. The former chapel of Peterhouse, now the church of St. Mary the Less, was used as the college chapel for three and a half centuries. Originally in the Decorated Style of the fourteenth century, it has lost its charm and interest through the alterations it has experienced.

Queen's College, founded in 1448, is entered through a vaulted gateway, surmounted by four turrets, which leads to the great court, on which stand the hall, library and the old chapel. The new chapel is on another court, removed from the other buildings.

Corpus Christi College was established in 1352. The west front and entrance court are modern work, but the second court belonged to the original building. A curious covered passageway is built from this college to the church of St. Benedict. The tower of this church, which is noteworthy, is generally recognized as one of the best ex-



"THE COMBINATION ROOM," PETERHOUSE COLLEGE, CAMBRIDGE, ENGLAND.

amples in England of pre-Roman architecture. The remainder of the building is modern, with the exception of an arch in the interior, which opens into the tower.

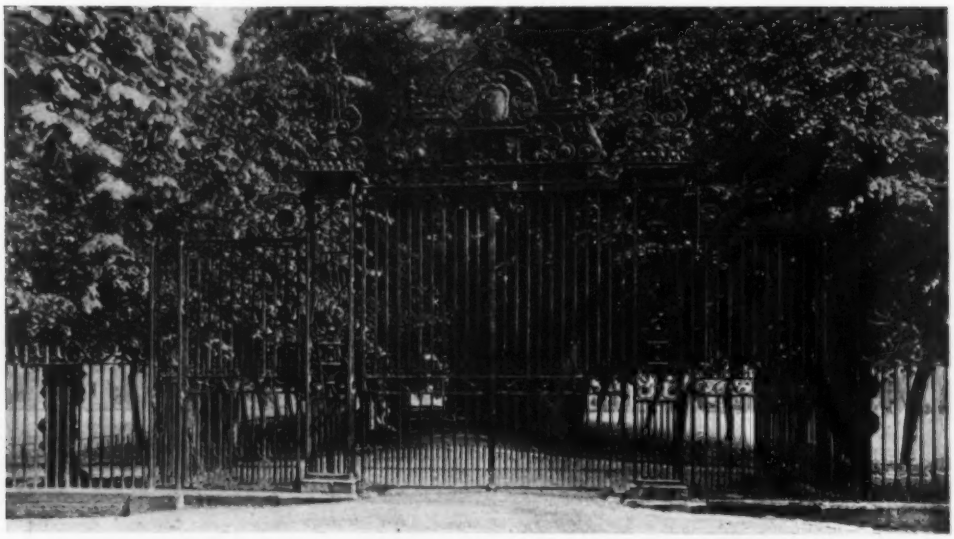
Perhaps the most interesting of all the colleges at Cambridge is King's College. The great court, entered by a splendid stone gateway, is separated from the street by a modern openwork stone screen in the Gothic style, surmounted by small pinnacles. And immediately one has entered this court the attention is caught and held by the chapel.

This beautiful edifice, one of the finest Perpendicular structures in England, is the architectural glory of the countryside. And the interior is the glory of the chapel. Here is typified the highest development of Gothic vaulting, known as fan-vaulting, giving to the interior a beauty and grace that is unsurpassed. The wood carving of the stalls and organ vie for place in beauty and interest with the vaulted ceiling. Beautiful stained-glass windows of the sixteenth century illuminate the interior with a soft and colorful light. And everywhere, in large detail, both on exterior and interior, are carved the emblems of the Tudor house—the portcullis and rose. The entire chapel is 290 feet in length and 85 feet in width.

The other buildings of the college are of the eighteenth and nineteenth centuries and lack architectural interest.

The largest college in England is Trinity College, founded in 1546, which is entered through the beautiful arch known as King's Gateway. The statue of Henry VIII. surmounts this gateway and statues of various sovereigns decorate the court facade. The chapel —a Tudor construction—contains some splendid carved woodwork and numerous statues. The dining hall, seating seven hundred persons, is a fine example of its kind. A passage leads from the hall to the cloisters—an open court enclosed on three sides by covered arcades. The library, built by Sir Christopher Wren, though not unusual in design, exhibits good taste and intelligent study.

The plan of St. John's College is built about four courts. The first court is entered by a monumental stone gateway surmounted with its statue of St. John. On this court are built the chapel—a modern "Decorated" building, the interior of which is crowded with marbles

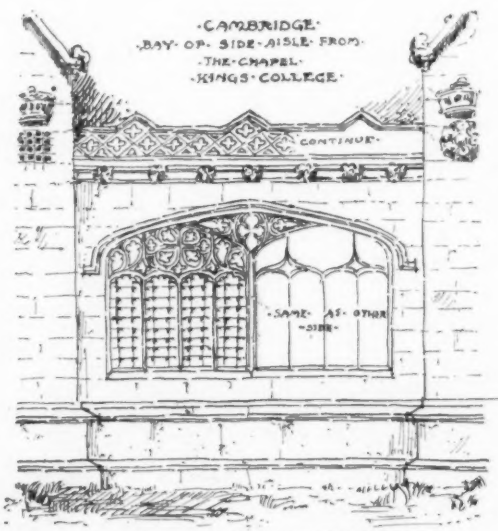


IRON GATEWAY, TRINITY COLLEGE, CAMBRIDGE, ENGLAND.

and carvings—and the Hall. This is a long room, panelled in dark oak, and roofed with a fine open timber roof which is both structural and ornamental.

The second court is interesting mainly on account of its brick work. Time, the greatest of artists, has colored the brick a beautiful purple-red. The buildings of the other two courts are lacking interest.

Jesus College is built on the site of a Benedictine nunnery. Its most interesting building is the chapel. This building was originally the church of the nunnery, but now, as the college chapel, it is shorn of two-thirds of its nave. The transepts are late Norman work. The remainder of the building, while added to in the Perpendicular style, is Early English in character. Here also are windows by Morris and Burne-Jones.



A DETAIL SKETCH AT CAMBRIDGE.

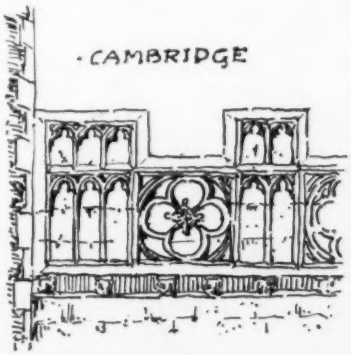
An odd building, of which there are but three others extant in all England, is the Round Church. It is the oldest of the four round churches, being an early Norman building of the year 1101. While the college buildings may be called interesting and picturesque, they are hardly remarkable from an architectural viewpoint—with one or two exceptions, such as King College chapel, Fitzwilliam Museum, and several of the gateways. The main interest in the town lies in its being the seat of a university, and in the histories of the various colleges and their students who later became famous.

From Cambridge to Ely the roads were almost perfectly level—as indeed they were for the last ten miles between St. Albans and Cambridge. On arriving before the door of the hotel in Ely at which I intended staying the first

"BRIDGE OF SIGHS," ST. JOHN'S COLLEGE, CAMBRIDGE, ENGLAND.

person I met was a shipboard acquaintance, whom I had not seen during the nine months I had been in Europe. And the queerest part of this meeting was that this gentleman, having been in Europe all that time, was leaving for Liverpool in a few hours to take his passage homeward. So, as fellow-countrymen in a strange land, we at once joined forces and together set out to explore the town.

The interest in Ely—aside from its history—centers in the cathedral. There is very little else in the town worthy of notice. But the cathedral in itself makes up to us for the paucity of other considerations. It is built on the site formerly occupied by the abbey of St. Etheldreda, founded in 673 A. D., and is one of the largest and most varied in England. Its measurements are: Length, 520 feet; breadth, 77 feet; length of transepts, 178 feet; height of nave, 62 feet, and height of choir, 70 feet.



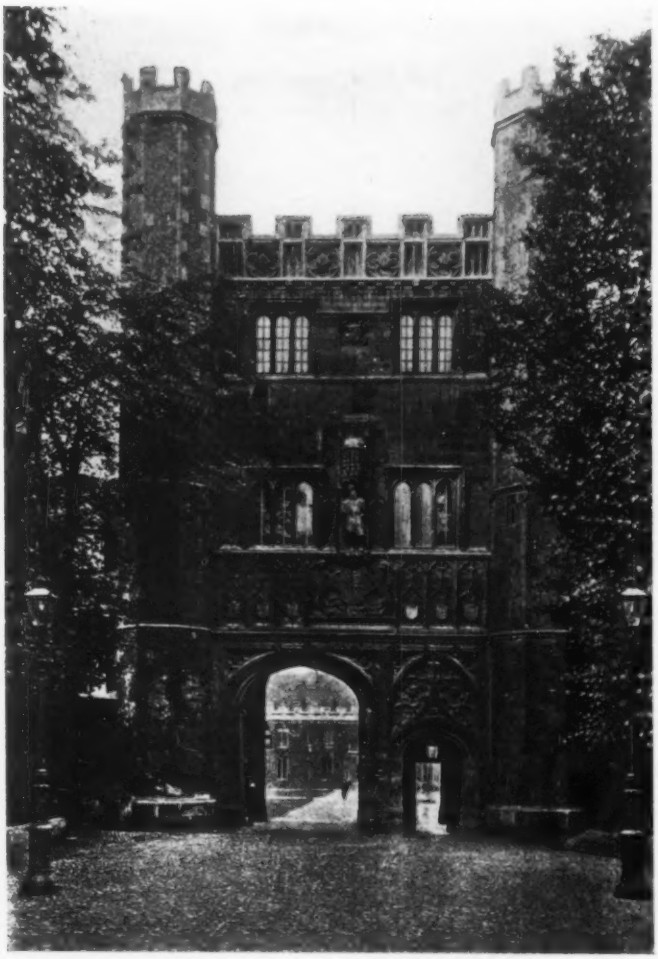
DETAIL OF PARAPET FROM GREAT GATE, TRINITY COLLEGE, CAMBRIDGE.

The first work on the present building dates back to 1083. The last work was done in 1847 when the entire building was restored under the supervision of Sir Gilbert Scott.

But the crowning beauty of the cathedral of Ely is its famous Octagon, built 1322-28, following the fall of the central tower. Through its beauty and the genius displayed in its construction, it has immortalized the name of its creator—Alan de Walsingham.

The western tower on the exterior at once attracts attention. It does not look as if intended for a church, but rather as if for a fortress. The heavy effect of this Norman Transition piece of work is relieved to a certain extent by the turrets and the octagonal capping which were added during the Decorated period. The Octagon dominates the whole building from every point of view.

The nave of Ely cathedral is a splendid piece of late Norman work. The ceiling—now pitched—was originally flat, but the construction of the Octagon necessitated this change. The painted decoration that



"THE GREAT GATE," TRINITY COLLEGE, CAMBRIDGE, ENGLAND.

ornaments it is by Mr. l'Estrange and Mr. Gambier Parry. In the south aisle stands an interesting old Saxon Cross.

The nave ends at the Octagon, which terminates in a fine timberwork lantern 142 feet above the pavement. The Octagon itself was harmoniously and cleverly decorated in color by Gambier Parry.

St. Edmund's Chapel, which opens off the north transept, was restored in 1898. The interesting contents are a fourteenth century screen, and the remains of a fresco depicting the martyrdom of St. Edmund.

The wooden screen separating the Octagon from the choir is a modern piece of work. The eastern half of the choir (Early English) is almost a century older than the three splendid western bays (Decorated). Of the woodwork—everything is modern with the exception of the upper stalls, which are fourteenth century work.

At the ends of the two side aisles are two interesting chapels—one being the chapel of Bishop Alcock, and the other that of Bishop West. Both are masses of beautifully carved stone work of an amazing fineness and delicacy, but at the present date they show the destruction wrought by the revolution for the Commonwealth. On the floor of the aisle between these two chapels is preserved a curious piece of Mosaic.

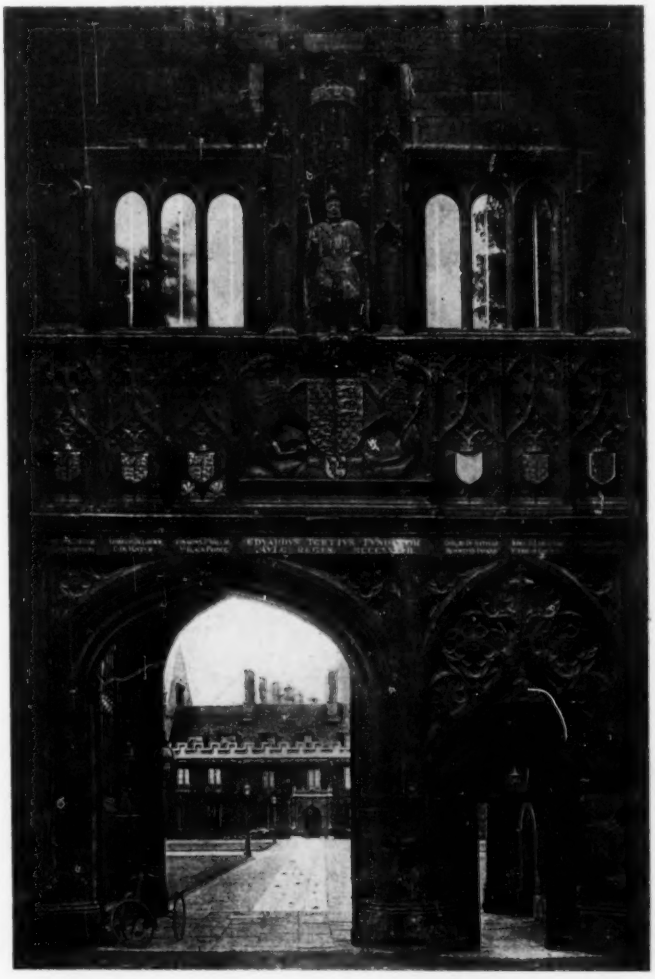
The entrance to the Lady Chapel is in the northeast corner of the north transept. This chapel, a good specimen of Decorated work, was being restored at the time I was visiting the cathedral. It is at present serving as a parish church.

In former times there was a cloister adjoining the cathedral on the south, of which only a few fragmentary remains now testify to its existence.

The remains of the monastic buildings, greatly altered and added to, now serve as the deanery and school.

I was an actor and victim in a very amusing occurrence while visiting the cathedral. After all the visitors had left, and the hour for closing the doors

of the church was approaching, the verger, seeing that I was greatly interested in the building, offered to take me up to the triforium and over the roof. I gladly accepted his proposal, and accompanied him through wonderful storerooms filled with architectural fragments, through narrow, low doorways, and under the broad sweep of buttresses. While so engaged we heard the workmen who had been busy with some restorations in the triforium, leave the building, but paid little attention, until, on descending the circular stone staircase, found that the door at the exit was locked. The workmen had not known that anyone was in the building and had unconsciously made us prisoners! The key to the door they had hung in its accustomed place on the pier at the foot of the stairway, but at the other side of the door. There semed no way for us to get out! the verger and I, after thinking of various schemes, finally decided to utilize some rope which lay near by and so descend from our prison, but the rope was not sufficiently strong. After waiting a half hour, we had about made up our minds to spend the night where we were, when the echo of footsteps upon the cathedral floor reached our eager ears. Our shouts soon won our liberation, and we thanked a kind Fate that two of the visitors had missed their train, and by purest chance had returned to the cathedral to kill time!



DETAIL OF "THE GREAT GATE," TRINITY COLLEGE, CAMBRIDGE, ENGLAND.

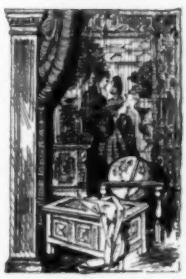
And now I wish to give a few closing hints to prospective travelers. In visiting various places, one can procure some fine views of buildings and their details that will be of great value in after years. These photographs can be purchased at the rate of ten cents the dozen and are in post card form. A camera can thus be dispensed with, for not only is it unnecessary, but it makes an extra package, necessitates delays while the negatives are being developed and makes considerable added expense. For details of which photographic views cannot be purchased, the sketch book offers an efficient substitute, besides de-

veloping the sketching ability of the student.

The cost of living in England, while not expensive, is the least bit higher than in France. Thus far on my trip, I found that my three meals a day had averaged about 4 shillings ($.96) a day, my room each night, 1 shilling 6 pence ($.36) and incidental expenses such as postal cards, tips, etc., came to about 1 shilling 6 pence more. This made a total of about 7 shillings a day, or $1.70. Of course, one cannot live anything but plainly at this rate.

While traveling in England, I generally stopped at temperance hotels. These hotels are, on the whole, reasonably good and clean, though, of course, in the vicissitudes of traveling, exceptions are always to be found. But during my entire trip through England I had very little to complain about regarding the treatment I received at the hands of my hosts.

"THE GARDEN PARTY," A GOTHIC-RENAISSANCE TRANSITION TAPESTRY DESIGNED AND WOVEN IN AMERICA.



TAPESTRIES FROM THE ARCHITECTVRAL POINT OF VIEW

By GEORGE LELAND HVNTER

Part II. (Continued)

JUST AS A LARGE proportion of the late Gothic tapestries show strong Renaissance influence, so many of the early Renaissance tapestries show Gothic influence. This is noticeable in the Story of Notre Dame du Sablon, a set of four, first revealed to the modern world of tapestry lovers by the publication of the catalogue of the Spitzer Collection in 1890. The most interesting of these pieces is illustrated on page 138 and is now in the Brussels Museum. Like many of the late Gothic tapestries, it consists of three main scenes in triptych arrangement. Each of the outer scenes illustrates the Latin couplets above and below, the one in the middle the Latin couplet below.

The prominent figures in the central scene are the Emperor Charles V and his younger brother Ferdinand, who carry the litter upon which stands the image of Our Lady of Sablon. The resemblance between Charles V and the present King of Spain is striking. The personage who appears in all three tapestries with staff and sealed letter is the donor Francis de Taxis, Imperial postmaster. The set of four tapestries to which this belonged was completed in 1518 as shown by the inscription in the right border.

The most famous tapestries in the world are the Acts of the Apostles set at the Vatican. The most famous cartoons in the world are the Acts of the Apostles set in the Victoria and Albert Museum. But about these cartoons

"NOTRE DAME DU SABLON," A SUPERB RENAISSANCE TAPESTRY.

In the Brussels Museum. The personages carrying the litter in the centre panel are the (later) Emperor Charles V and his younger brother Ferdinand.

"THE CURE OF THE PARALYTIC," A XVIITH CENTURY TAPESTRY WOVEN AT MORTLAKE FOR CHARLES I OF ENGLAND FROM ONE OF THE RAPHAEL CARTOONS, "THE ACTS OF THE APOSTLES." It is now in the French National Collection.

painted by Raphael and the Vatican tapestries woven from them there is nothing transitional, little Flemish, and nothing Gothic. Panels and borders alike represent the full and free expression of the Italian Renaissance.

The tapestries were woven in Brussels from the years 1516-19 under the supervision of the Flemish painter Barend Van Orley, a friend and pupil of Raphael, in the shop of Pieter Van Aelst, tapestry-weaver to Philip the Handsome, and to Philip's son, the future Emperor Charles V.

Of the Acts of the Apostles set many duplicates were made in the Sixteenth and Seventeenth Centuries, all of which have borders different from those of the original set. The best set with the best borders was that woven about 1530, now in the Royal Spanish Collection. An important Seventeenth Century set that survived is the one woven by the great Jan Raes of Brussels, that once was a part of the Duke of Alba's collection and now hangs in Hampton Court, having been presented to the British nation by Baron d'Erlanger. Another important Seventeenth Century set is the one now in the French National Collection, woven at the famous Mortlake works in England for Charles I. Another important Seventeenth Century set is that in the Beauvais Cathedral signed by Philip Béhagle, proprietor of the Beauvais tapestry works at the end of the Seventeenth Century.

Of the original set woven for the Vatican and still preserved there, photographs of extraordinary size have been specially made for Mr. Morgan and by him presented to the Museum. They hang in the photograph room in the library of the Metropolitan Museum. These photographs show the tapestries as they are now and illustrate the fact that the bottom borders were woven in imitation of bas-relief and pictured the life of Leo X before he became Pope. The almost complete absence of side borders is due not altogether to the ravages of time, but principally to the fact that the spaces which were to receive the tapestries in the Sistine Chapel, for which they were woven, permitted of only seven side borders instead of twenty for the set of ten tapestries. The subjects of the tapestries are as follows:

(1) The Miraculous Draught of Fish, (2) the Charge to St. Peter, (3) the Cure of the Paralytic, (4) the Death of Ananias, (5) the Stoning of St. Stephen, (6) the Conversion of St. Paul, (7) Elymas Struck Blind, (8) the Sacrifice of Lystra, (9) St. Paul in Prison, (10) St. Paul on the Areopagus.

While the Angers Apocalypse mentioned above, and other remarkable sets of tapestries, were woven in Paris in the Fourteenth Century, it nevertheless is true that the centre of tapestry weaving during the Fourteenth, Fifteenth and Sixteenth Centuries was the French-Flemish cities situated in what is now Belgium and the extreme north of France. During the last part of the Sixteenth Century, the industry was to some extent restored in Paris. In the first half of the Seventeenth Century, the tapestry works of Paris encouraged and developed by Henri IV and Louis XIII; and the tapestry works at Mortlake in England, founded near the end of the reign of James I through the influence of Prince Charles and the Duke of Buckingham, usurped much of the glory that had formerly distinguished Brussels, Arras, Tournai, Bruges and Enghien. The period of prosperity for the Mortlake looms was brief and little was done there after 1636. The various looms of Paris were combined in 1667 under Charles LeBrun into the Furniture Factory of the Crown, the institution now called the Gobelins. At the same time was founded the Beauvais tapestry works, which was not at first a state enterprise like the Gobelins, but a private one with royal protection.

During the Seventeenth Century and the first third of the Eighteenth, tapestries of the highest merit continued to be woven in Brussels and in some other Flemish cities. But the moment the Gobelins became a state institution, it carried with it not only the prerogative associated with the tapestry works of the country that was setting decorative styles for the rest of Europe, but it also benefited by the immense sums Louis

"ST. PAUL BEFORE AGRIPPA AND BERENICE," A RENAISSANCE TAPESTRY. (In the Royal Spanish Collection.)

XIV was willing to pay for tapestries. So that from the reign of Louis XIV on, French tapestries stood higher in popular estimation than Flemish ones. By the middle of the Eighteenth Century the industry had become French, and since then those who wish to establish tapestry works in other countries, have gone to France for their weavers, just as in the Seventeenth Century France and England went to Flanders.

The centre of commercial production of tapestries for the open market—wall tapestries and especially furniture coverings and rugs—is now the little town of Aubusson, 200 miles south of Paris. When the industry was founded here no one knows. Local pride likes to date it from the year 732 A.D. What we know is that in 1664 in a report to the King, the tapestry merchants and weavers spoke of the manufacture as "established from time immemorial." In the early part of the Eighteenth Century the Aubusson manufacturers received considerable assistance and encouragement from the French government.

At the Paris Exposition in 1900, the exhibits of three Aubusson manufacturers were awarded Grand Prizes—the same award as to the government works at Gobelins and at Beauvais.

At the same exposition the Grand Prize was also awarded to four tapestries picturing the Holy Grail, designed by Burne-Jones and Morris and Dearle, and woven at Merton near London, England, at the works established there by William Morris. One of these tapestries, picturing the Knights of the Round Table and the Maiden of the Quest, I like better than any other tapestry design made since the Sixteenth Century and consider worthy to be compared with the Tapestries of the Golden Age.

While it was Burne-Jones who did the figures, it was William Morris who was responsible for the backgrounds, the borders, the coloration and the weaving. This man was a genius. He had more influence on the industrial arts, I believe, than any other man in the world's history. His acuteness of vision and his sensitive appreciation of texture, form and color, were remarkable. While ordinary persons are blind to the obvious qualities of tapestries and rugs, damasks and brocades, wallpapers and marble and brick and wood, they spoke to Morris a language which he understood. That was the secret of his success in reviving the art of tapestry weaving at Merton. He understood texture. He knew the difference between 18th century tapestry texture and that of the 16th century, and he deliberately and intelligently went back to the texture of the Golden Age of tapestry, solving the difficult problems of weaving on the loom with his own mind and hands, and then teaching others the art.

In all other great revivals of tapestry trained workmen have been imported from the centres of tapestry production —from Flanders to Italy and other countries in the 15th century; from Flanders to Paris and Mortlake at the beginning of the 17th century.

But William Morris imported no workmen from abroad. He had a loom set up in his bedroom at Kelmscott House, Hammersmith, and, in order to avoid interfering with his other occupations, used to arise betimes and practice weaving in the early hours of the morning. In four months during the year 1879 he spent no less than 519 hours at it. His diary is headed: "Diary of work on Cabbage and Vine Tapestry at Kelmscott House, Hammersmith. Begun May 10th, 1879."

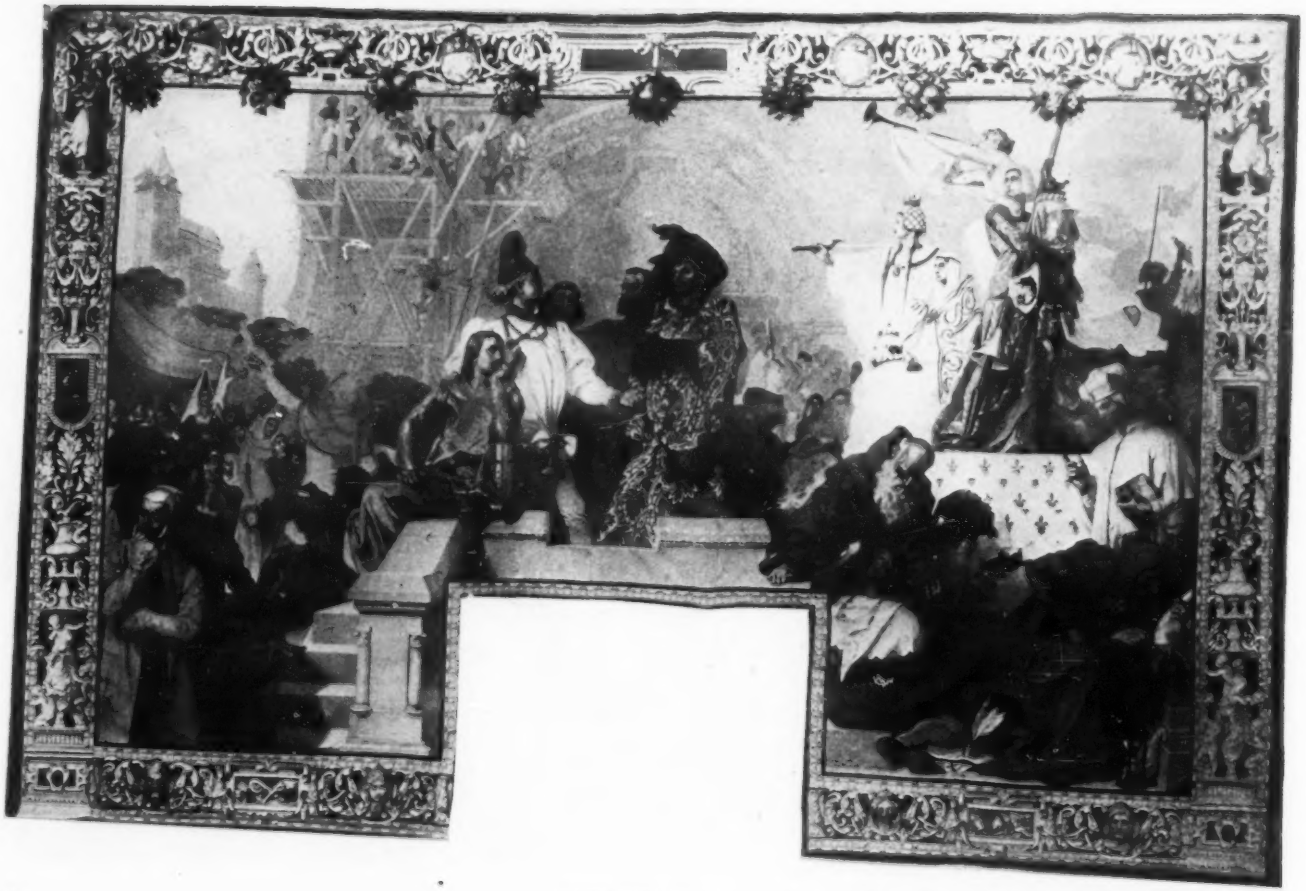
How highly Morris regarded tapestry is clear from a letter he wrote in November, 1877, to Mr. T. Wardle. In the course of it he says:

"Nothing is so beautiful as fine tapestry. . . . Tapestry at its highest is the painting with colored wools on a wall."

The next year, in March, he wrote to Wardle:

"I enclose a warp from a 16th century piece of tapestry, which as you see is worsted: the pitch is twelve to the inch: nothing in tapestry need be finer than this. In setting up your work you must remember that as tapestry hangs on the wall the warps are horizontal, though of course you weave with them vertical."

"THE STAR OF BETHLEHEM" IN EXETER COLLEGE CHAPEL. A TAPESTRY DESIGNED BY BURNE-JONES AND MORRIS AND DEARLE AND WOVEN AT MERTON, IN ENGLAND.



"THE MIDDLE AGES," A MODERN GOBELIN TAPESTRY DESIGNED BY F. EHRMANN FOR THE PARIS BIBLIOTHEQUE NATIONALE.

Morris had no doubt about the warp threads (that show as ribs) of wall tapestry being horizontal. He had looked at tapestries with his eyes open.

At Aubusson today they not infrequently weave wall tapestries with vertical ribs and one of these was even awarded a grand prize at Paris in 1900. Moreover, one of the master workmen at the Gobelins assured me that the only reason for weaving wall tapestries with horizontal ribs was that it is easier to do the work that way on account of the main lines of the design to the warps. He did not know, nor could I convince him, that a wall tapestry with vertical lines is an abomination and that a fundamental part of tapestry texture for wall hangings is the presence of strongly marked horizontal ribs in relief. This of course does not apply to narrow friezes or small pieces that are remote from the eye and have a strong and definite architectural framing.

PART III.—TAPESTRY WEAVING IN AMERICA.

The weaving of tapestries in America dates from the month of February, 1893, when the late William Baumgarten set up the first loom in New York, under the direction of M. Foussadier, previously master-workman of the Royal Windsor Tapestry Works that had flourished for a short period in England. The first piece of tapestry made was a small chair-seat that remains as an heirloom in Mr. Baumgarten's family. The second piece, a duplicate of the first, is now in the Field Museum at Chicago.

Other weavers soon followed M. Foussadier, and before long it became necessary to move the works to Williamsbridge in New York City, a district where many French people still live, thus making the French weavers feel at home.

Mr. Baumgarten told the story of the founding and development of the first tapestry works in America before the Society of Antiquarians at the Chicago Art Institute, March 25, 1897.

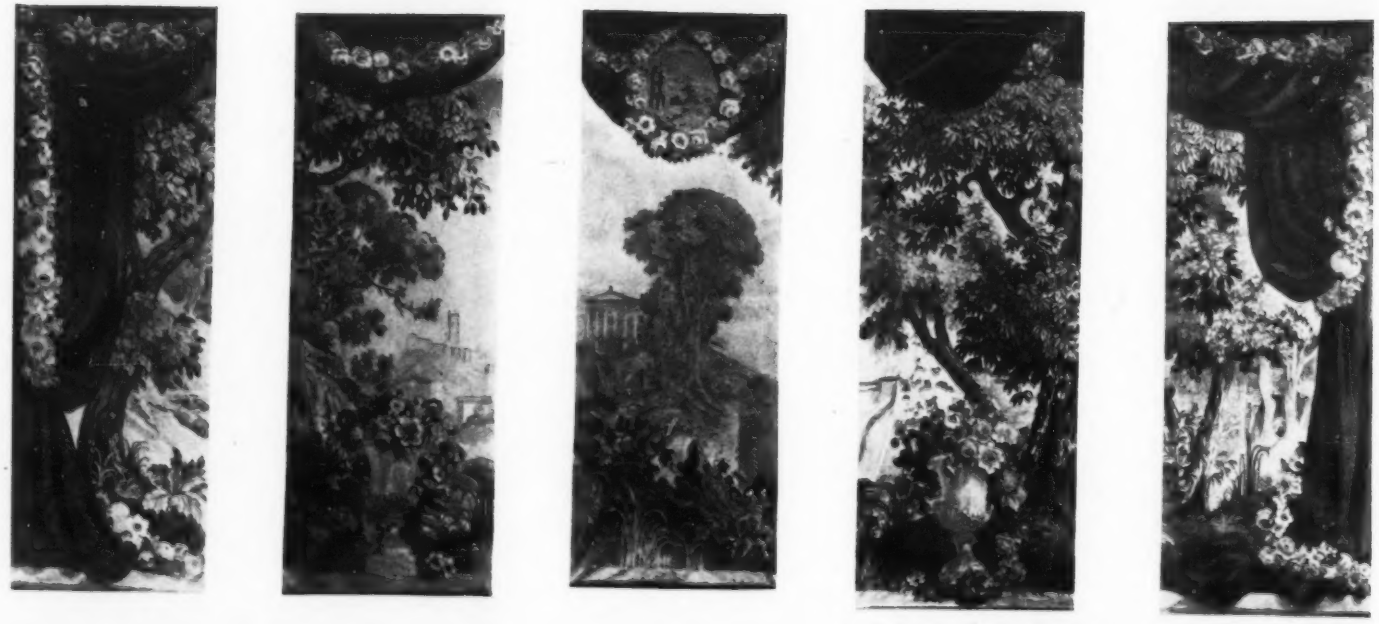
Of the six large tapestry works in the world—the Gobelins, Beauvais, three at Aubusson, Williamsbridge—the Williamsbridge one is by no means the least important as regards quality or output.

Among important tapestries woven at Williamsbridge are a set of ten verdure panels for the Rhode Island State House, a large verdure for the directors' room of the New York Life Insurance Company, and many for private residences, the most important being "The Triumph," a series of tapestries, picturing a triumphal procession, that adorns the walls of both the upper and lower halls of a palatial residence in New York City. This residence is better equipped with fine modern tapestries than any other residence in the world. The wall panels and the cantonnière in the Louis XVI reception room are unusually interesting. So, too, are the tapestry rugs that cover the floors of the chambers. This residence shows how ancient and modern tapestries can be successfully used in the same room, which renders it possible for those having furniture upholstered in ancient tapestry to have wall tapestries designed and woven to match, or for those having fine wall tapestries to have furniture coverings woven to match.

An interesting fact about the damassé panels containing small pastoral scenes after Boucher is that the Frenchmen on the jury at the St. Louis Exposition were unwilling to believe that they had been made in America. They insisted that such perfection of weave was impossible outside of France. It was only when confronted with the evidence of those who had seen the panels on the looms that they yielded and consented to award them the Grand Prize.

Other American tapestry looms are those established in February, 1908, by Albert Herter, in New York City. Though a painter by profession, Mr. Herter has a keen appreciation of tapestry texture, which he has developed by personal work at the loom. Like Mr. Morris, he has a particular liking for Late Gothic "verdures with personages," as illustrated by the frieze woven for the hall of Mrs. E. H. Harriman.

Among other American tapestry looms, the most important are those es-



TAPESTRIES IN THE HALL OF THE HOUSE OF REPRESENTATIVES IN THE RHODE ISLAND STATE HOUSE, McKIM, MEAD AND WHITE, ARCHITECTS. These tapestries are five of a set of ten designed and woven in America. The two groups face each other on opposite walls. They are in very coarse weave, and the pronounced texture softens the interior most effectively. These are the most important tapestries ever made in America for a government building.

tablished two years ago in New York City, by W. F. Stymus.

In response to a letter sent out by the Editor of the Architectural Record to several prominent architects, asking an expression of opinion on the use of tapestries in certain types of building, the following answers were received:*

Mr. Ralph Adams Cram, of the firm of Cram, Goodhue and Ferguson, wrote:

"I am glad you asked me for my opinion as to the use of tapestries in churches, as it gives me an opportunity to say something in their favor.

"In my opinion, and as one who has been involved in church building for a generation, I have no hesitation in saying that, next to good stained glass, good tapestries can do more toward perfecting a church interior than any other kind of decoration. Always in the past the great cathedrals, abbeys and churches were hung with tapestries whenever these were available and could be acquired. Fortunately one or two examples still exist in France of their use in this connection, and it is only necessary to see these to realize their immense value. Stained glass, properly considered, is strictly an architectural decoration, and the same is true of tapestries. Each has a quality that adapts it with peculiar delicacy to its architectural environment, and each works toward that restoration of color to church building which was so intimately a part of the art in its great days, and which has so largely escaped consideration in the great restoration now going on in this particular direction.

"From a purely practical standpoint, also, tapestries are of the utmost use, since they can do so much toward correcting the acoustical difficulties that frequently arise in a masonry interior, as they absorb in a measure the waves of sound that otherwise would be reflected back to the speaker and cause an echo and a resonance that make intelligible speaking sometimes almost impossible.

"Properly designed—*i. e.*, with regard to their architectural function, and made after the ancient fashion—genuine tapestries may be made one of the greatest agencies for the beautification of a church interior, and for the completion of the religious and architectural effect, and I regard with the utmost enthusiasm the steps now being taken toward restoring to religious art this most unique and exquisite element."

Mr. Philip Hiss, of the firm of Hiss & Weekes, himself a collector and connoisseur, says that he believes that we are entering upon a period of extended use of tapestries for decoration, and that, as a decoration, they add dignity to interiors of private residences wherever they are used. He also believes in every effort being made by the architects of this country toward the encouragement of tapestry designing and weaving.

Again bearing on the use of tapestries in private residences we have the testimony of Mr. James Gamble Rogers, of the firm of Hale and Rogers, who says:

"Tapestries are the best and surest decoration possible. Even when they are not in the same style as the room, they are always beautiful in themselves and dominate the situation. They give a richness and depth of color that, without them, is lacking in almost all interiors. Velours, brocades and damasks give brilliancy and color, but they are too flat, tapestries alone having the requisite depth. I agree with Mr. Hunter that the thing of most importance in tapestry is *texture*. The weave is of more importance than the design. I count color as second in importance, design as third in importance and the story as fourth in importance. In fact I never ask the story of tapestries I am buying. If the texture and color are right, and the design passable, I am satisfied.

"Of course it is possible to make mistakes in the use of tapestries. Some people who make them a fad use too many in one room—people who have what I call the 'adding' disease. Tapestries are so significant and so vital that they require more room decoratively than other art objects of equal size.

"It is very easy to hang tapestries wrongly and many people do so. They

*For assistance in the preparation of this article I am deeply indebted to Frank Alvah Parsons and to the architects who so courteously responded.

A MORTLAKE TAPESTRY BELONGING TO PHILIP HISS, ESQ. Now on exhibition at the Metropolitan Museum.

must be placed rightly in order to produce a satisfactory effect. If they are placed badly, they spoil a room instead of perfecting it. In this they are like old furniture, which I use very freely in furnishing residences, but which, because badly placed, spoils so many interiors."

The never-failing success in the effective use of tapestries from the architectural point of view has always characterized the work of Mr. Charles A. Platt, who may be indirectly quoted as follows:

"The best illustration of what I think of tapestries for private residences is the fact that I use so many of them, not only in Italian interiors, but also in Colonial interiors. Of course not every room is suited for tapestries and it is also important that the tapestries should be in the same scale as the room. In large Colonial rooms I often use verdures of the Oudenarde type copied and developed in Aubusson, although I prefer the tapestries of the Renaissance, especially those of the early Renaissance with comparatively small figures. While there are many rooms in which tapestries may or may not be used according to the taste of the owner, there are some in which tapestries are imperative. I refer to rooms in the style of the Italian Renaissance, with plain walls. Such rooms simply must have tapestries to give them character and color and warmth.

"The tapestries of the Louis XV period I like least of all, but I should not hesitate to use a Boucher panel in a Colonial room provided the tone was especially *uni* and the borders were not too obtrusively a woven imitation of a gilded wooden frame.

AN AMERICAN REPRODUCTION, PERFECT IN STYLE AND TEXTURE, OF ONE OF BOUCHER'S FAMOUS "NOBLE PASTORALE" SET WOVEN AT BEAUVAIS (18TH CENTURY).

"TAPESTRIES FROM THE ARCHITECTURAL POINT OF VIEW."
DINING ROOM, RESIDENCE OF THE LATE COL. JOHN JACOB ASTOR. CARRERE AND HASTINGS, ARCHITECTS.

"While in Paris recently I devoted a great deal of time to looking at tapestries and was impressed with the fact that good examples are becoming very rare. Of course what I was after was 16th century pieces, but incidentally I was obliged to look at a good many French ones of the 18th century."

Mr. H. P. Knowles, well-known as an architect of Masonic buildings, contributes a special note of exceptional interest—a note, incidentally, which could well be paraphrased to apply to other specific types of buildings, such as clubs, libraries, theatres, etc.:

"Replying to your inquiry concerning the adaptability of tapestries for decoration for fraternity buildings, it is my belief that no other form of decoration is more suitable. The majority of lodge rooms are oblong in shape, with moderately high ceilings and side walls usually divided into panels, which lend themselves to decorations which will form a background for the architectural detail. These panels are usually left plain, or if decorated, unfortunately the type selected is too often a very inferior example of painting.

"In Masonic buildings, the ritual and dramas of the fraternity are replete with subjects for the tapestry weaver's art. Many scenes may be imagined in connection with the building of King Solomon's Temple (the story of which forms an important part in the ritual of the Masonic fraternity); the four cardinal virtues and the principal tenets of the order suggest at once subjects that are ideal for tapestry decoration. The stories of the Crusaders, which form part of the ritual in the Commanderies, also afford interesting subjects; in fact I cannot imagine any building, other than a church, that lends itself more admirably to the tapestry art than a large Masonic Temple. The wonderful texture of this material, with its strong horizontal lines and lighter vertical lines, combines perfectly with the work of the architect, and it is with pleasure I learn that the Architectural Record is taking up the study of this fascinating branch of art."

Returning again to expert opinion on the effective use of tapestries in private residences, we are indebted to Mr. B. Bancroft Smith for the following:

"There is evidence of a rapidly growing interest in tapestries, and more than ever are they receiving proper consideration in the preparation of designs for interior work.

"In private residences, tapestry is most effective when used for wall hangings, and surpasses for the purpose all other mediums of decorative expression. The comparatively coarse texture produced both by the material used and by the well indicated horizontal rib lines of the weave, provides a surface admirably adapted for a background and for transition between the strictly architectural features and the portable furnishings of a room. In the creation of perspective tapestries are invaluable, and the picture interest in color and drawing adds materially to a decorative scheme. As wall coverings they should be hung from the top edge by concealed hooks, never framed or stretched flat against the wall surfaces, and where possible they should be hung over stone, marble or cement walls having little or no architectural treatment.

"Tapestries may also be effectively used for window and door hangings and for furniture coverings. Especially effective are old Renaissance borders in framing doorways and as cantonnières, as valances and table mats, appliqué on plain stuffs, as screen panels, etc. But it is of prime importance in making the original plans that the architect should provide spaces and places where tapestries shall produce a definite and preconceived result. This done, the main decoration of the room has been accomplished."

Which adduced testimony, gleaned from comparatively few sources, goes to show far more conclusively than may generally be realized, the significant status of the tapestry in architecture.

What the last few years have begun, the next few must appreciate, and tapestries, which were one of the very earliest esthetic solutions of the wall decorating problem, will be found to be, as well, the ultimate solution.

THE NEW LIGHTING

BY

HARRY PICKHARDT

It is well known that a decorative treatment can never be so planned that everyone is sure to be pleased with it, and owing to the great variety in tastes, what will appeal to one may be absolutely distasteful to another, depending on the individual fancy, while the proper and most harmonious lighting arrangement of an interior is not the least of the problems that confront the master builder. It is true, however, that there is always a best way to perform each task, and the rule applies as well to any lighting scheme including such as must combine the decorative as well as the purely illuminative requirements. While it would be vain to attempt to formulate a set of rules for the use of the designer of lighting so that he might always be sure beforehand of pleasing all those who would have an opportunity of seeing the results of his work, it is our hope that by pointing out some of the features of the recent lighting and giving examples of what is being done in this line, the individual who has similar work in hand may find something which he may apply to his own use.

It is not so long ago that in planning for the lighting of a building, the greater part of this work, in fact practically all, including the designing of the fixtures, their construction and even installation, and very often the number of fixtures to be used as well as their location, was left in the hands of the fixture manufacturers. The result was, as might be expected, considering he was in the metal business, the fixtures used were generally massive, ponderous affairs—the more metal used the better—the lights and accessories being incidental. As far as illumination went, there was usually a more or less unsatisfactory allowance per square foot of floor area no matter what the room was to be used for or how decorated, and the result might be what it would, it was left that way.

Figure 1.

Today the lighting man must know the height of the room as well as its area. He must determine the amount of light required, for the use to which it will be put. He must have a good idea of the color of the room and its decorations and furnishings. He must so plan the lighting that each portion of the room and each of its ornamental features will have that amount and kind of light as will best enable it to serve its purpose. We can no longer leave these details to care for themselves. The means we have of carrying out our work are also much greater in number and offer more choice in selection. We now

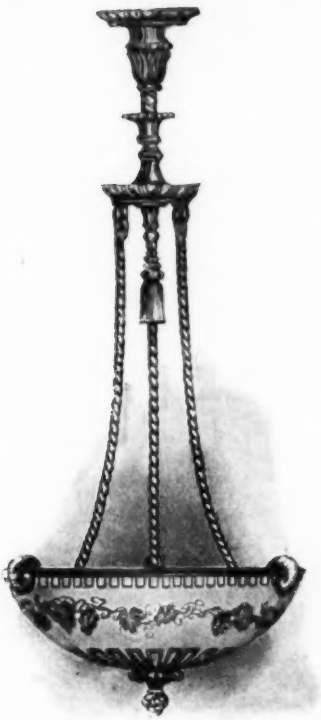


Figure 2.

have instead of the open flame gas burner and its successors, the Tungsten lamp with its dazzling light, which compared with the other electric lamps is inexpensive to operate, so economical in fact that we can well afford to modulate the strong rays to a softer, more agreeable and harmless state by using a diffusing globe. While in modifying the light of the Tungsten lamp to our requirements, a small per cent. is lost in efficiency as expressed in watts of energy required to lumens of light radiated, the seeability rate is wonderfully improved and the lighting is made to fulfill properly its important part, instead of being a discordant feature in the decorative scheme. The Tungsten lamp, being made in a number of sizes, it is but natural that the larger lamps have come into use, hence the decrease of the old fashioned many-armed fixture with its large number of lights, and the ever increasing use of the one light unit, until today the unit has come to be the standard, and with good reason. With the 150 watt 120 candle power, the 250 watt 200 candle power, or the 500 watt 400 candle power lamps, one can have as much light from a single source as could be wanted for decorative requirements, and besides the several other advantages a single lamp can be better controlled as to its effects and it can be more readily handled by the fixture designer, especially as regards the globe to be used with it.

One of the features of the recent progress in lighting was the indirect system or that in which the lamp was suspended with an opaque reflector beneath it so that the light is thrown on the ceiling and from there redirected downward and all about the room, the light source being invisible. While this system has several good points to recommend it, including its claimed natural daylight effect, uniform illumination, and the absence of a source of light to stare on in the eyes, to say nothing of the novelty, and though the system has many strong advocates who claim great superiority for it, indirect lighting is by no means to be accepted as a universal panacea.

In the first place it should only be used with light ceilings and, needless to say, ceilings that are not too high, otherwise its inefficiency becomes too great. Perhaps its greatest fault is its almost perfectly even illumination, and lack of shadows in a room so lighted. Some maintain that this condition produces a restlessness almost indefinable, due no doubt to our eyes being accustomed to light whose source we can see and which has a definite direction, producing shadows which accentuate the outline of objects, making them easier to see. It has even been stated that a strained effect is produced on the eyes of one having to endure this light for a lengthy period. It appears then that while the eyes should see the source of light, it must not be so bright as to be harmful.

When a definite want is felt its fulfillment is usually forthcoming, and it did not take long to find a means of producing light which embodied as far as possible the advantages of the indi-

rect system leaving out its faults, and the good features of the older direct lighting, the result being the semi-indirect system.

The features of this method of lighting are a light reflected upward toward the ceiling as in the indirect system, but there is at the same time a direct light of low intensity transmitted about the room, the light source of course being visible. One of the first means of accomplishing this effect was attained by surrounding the Tungsten lamp with a shallow dish made of carved alabaster. This carried out the idea of the old time sanctuary lamp with its perpetual light.

These hand carved alabaster bowls, while making a beautifully mild light, have since been replaced, no doubt partly on account of the great cost of the former, by different kinds of glass bowls which are in many cases even more beautiful and effective than the alabaster, as the glass bowls are capable

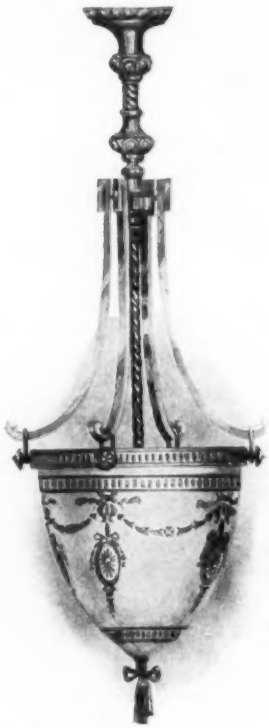


Figure 4.

of greater freedom and more minute detail in design and structure.

Unusually fine globes of a new glass resembling old alabaster have recently made their appearance in the market, some of them having a rich soft brown tone which, when lighted produces a light that is uncommonly mellow and agreeable and being fairly dense in nature acts as a good reflector, giving the indirect effect. The brown tone while warm and of pleasing color, it will be noted, is neutral as regards color harmony and can be used with any other color in a room's decoration.

The advantage of these globes is that they are perhaps equally as fine in appearance when unlighted as when lighted and unlike the too bright appearance of globes used in direct lighting, even when lighted, these globes on account of their low brilliancy are not obstrusive and one is almost unconscious of their presence.

It will be seen that with these large

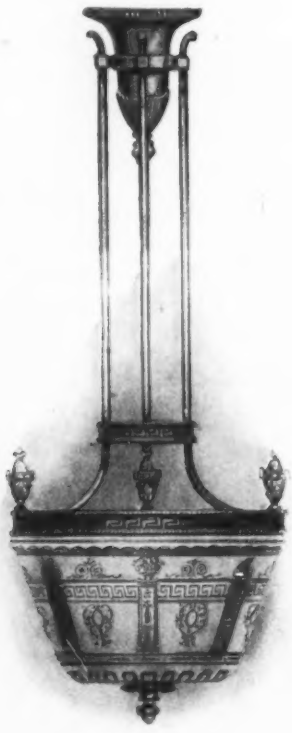


Figure 3.

globes the fixture becomes secondary and the globe is now the chief feature of the lighting equipment, and is the starting point in designing the same, the fixture being built around it.

The old time fixture with its mass of metal and but few lamps, and usually little or no glassware, has practically passed away.

Some of the new semi-indirect bowls recently seen have been carried out in the period decorations and are really good examples of the styles they conform to, matching in detail the other features of the room of this period in which they are used. While we have no precedent from which we can copy the present day lighting fixtures as a whole, electricity not having been in use during the periods represented, the ornamental details are true to their respective styles.

Figure 1 is an example of the Adam style and while not having the semi-indirect features on account of the metal top above the globe proper, complies nevertheless with the newer idea in lighting. While a globe such as this is somewhat dense in structure for direct lighting, the light radiated is increased by the upper metal top on the globe being silvered inside, and the lighting effect resulting is very good.

Figure 2 is a good illustration of the semi-indirect unit as the top of the globe is entirely open, and its shape is such that its light is properly reflected upward. This style is after the Colonial period, and while the design is altogether pleasing, it is also very effective as a light giver when used with a lamp such as the 250 watt size.

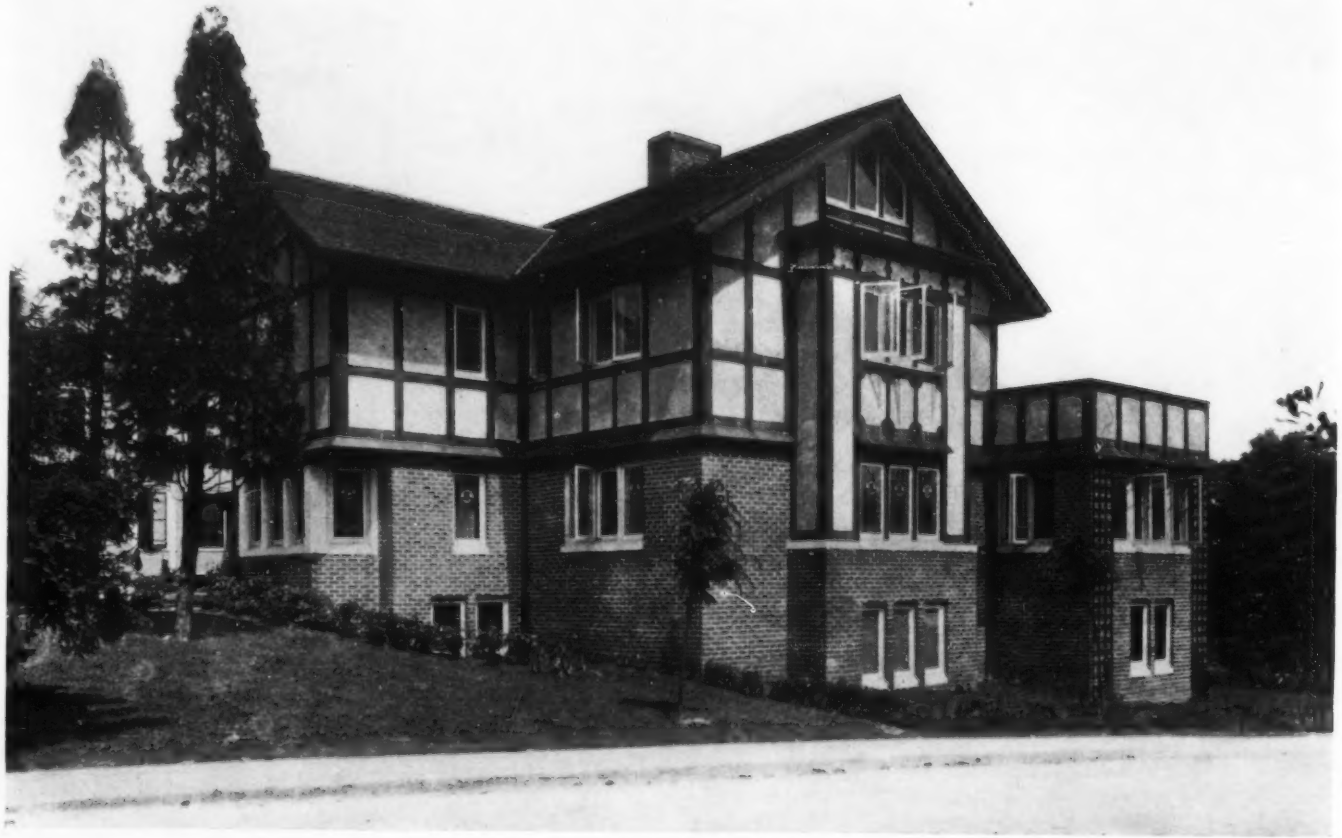
Figure 3, representing the Italian Renaissance style, while perhaps not as efficient as far as illumination goes, is unique in design, and quite in keeping with the modern tendency in lighting.

Figure 4, with its graceful lines is a representation of the Renaissance style. The shape of this globe though not productive of the greatest amount of light reflected upward, yet fairly carries out the semi-indirect idea, and as the whole globe becomes equally bright when lighted and not a central spot only, the result is such that, he would be indeed hard to please, to whom this design does not appear attractive.

Figure 5.

Figure 5, with the laurel leaf effect, follows more closely the modern school of decoration and is another very good example of the semi-indirect system. On globes of this style the pattern stands out in relief as on chiseled marble.

There have been shown here but a few examples of the new lighting, but the variety of styles and the general high quality of the really good lighting appliances recently produced indicates as plainly as can be the great progress being made in this field.



A HOUSE AT KNOXVILLE, TENN., SPENCER AND POWERS, ARCHITECTS. THE MASONRY WALLS GROW NATURALLY OUT OF THE GROUND, ON AN ABRUPTLY SLOPING SITE. THERE IS A ONE-CAR GARAGE UNDER THE PORCH, OR SUN-ROOM.

BUILDING the HOUSE of MODERATE COST

The Sixth Article

By Robert C. Spencer, F.A.I.A.

THE BASEMENT.

BEFORE DISCUSSING the relative merits of those building materials which are exposed to view between the ground and the roof and their possibilities from the designer's standpoint, let us consider that very important horizontal slice of the house which is below ground.

It is not the purpose of these articles to teach the experienced architect nor to tell the layman just how to build in a given case.

There are excellent technical books on building construction and superintendence, which cover the entire field.

But it is possible that some of my younger confréres upon whose library shelves these excellent and comprehensive works repose may be a bit careless or inexperienced as to certain details of these very important parts of the house.

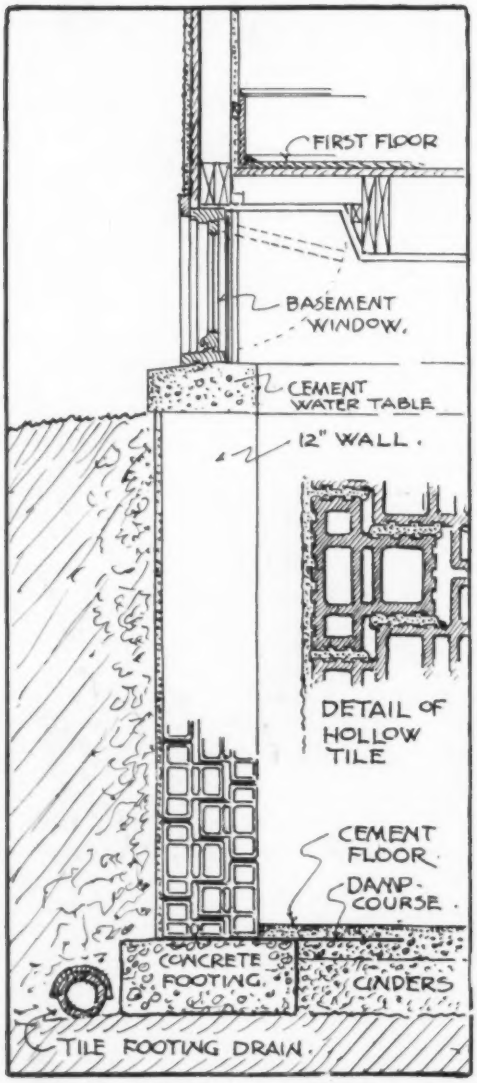
The first requisite of a good basement is a *soil* that is at least fairly good, —free, at least, from springs, muck and quick sand. It is rarely indeed that an owner cannot choose a site which is free from these troublesome defects, which may be so serious as to render the construction of foundations which shall be tight, dry and stable against settlement exceedingly difficult and too expensive to be worth while. The ideal soil on which to build a house is, of course, not ordinary soil at all, but sand or gravel, preferably the former, or a mixture of both in which the surface water drains away so readily that even in the heaviest rains and with walls of the most ordinary construction the basement is almost always sure to be dry,—while danger of settlement through scant breadth in the footings is reduced to a minimum. A building on sand or gravel also effects a very decided saving in materials, such as mortar and concrete, which is quite an item in the construction of a good-sized house. Stiff clay with little or no admixture of sand or loam, while giving a fine bearing for walls, makes of the excavation for the basement an ideal basin for holding large volumes of rain water, as is evident at once when the "hole-in-the-ground" has been dug and the first heavy rain comes, unless special precautions have been taken early to carry off the water from the lowest point in the excavation. Even more necessary, therefore, in stiff clay soil than in one which is soft and somewhat springy are footing drains outside the base of the walls to intercept and drain off as far as possible all surface water.

The junction of basement walls and concrete floor should be made water tight by means of a damp-course of some suitable elastic material to prevent any water and dampness which may reach the footings by capillary attraction of the floors above the ground level.

If soft and springy spots are encountered in the excavation they must, of course, be dug away as far as possible and thoroughly drained to some outlet at lower grade than basement level. In country work where there are no sewers, this matter sometimes proves troublesome to accomplish and may render a change of site advisable.

While it is rarely done in residential work, test borings to determine the nature of the sub-soil should be taken before deciding to build upon a site the character of which is at all doubtful. Even where the general character of the soil in a neighborhood appears to be good, springs and troublesome soft spots may possibly be encountered as well as pockets of quick sand.

When the character of the soil upon which footings are to bear is at all doubtful, it is advisable to provide in the masonry contract for a unit price for additional foundation material not shown on the plans, but which may be



DETAIL SECTION OF BASEMENT WALL.

Built of an improved form of hollow terra cotta tile, showing footing drain, damp course and framing over typical basement window, to give a maximum of light with the minimum height of first floor above grade.

necessitated in order to get down to a good solid bearing.

The choice of materials for basement footings and walls will of course be determined to some extent by local conditions affecting price, and it is not always easy to determine in advance whether brick, rubble stone or concrete is most economical. In case of doubt, it is well to allow the contractors the option of using any one of several materials, specifying the minimum thickness of the various walls for each material. In some localities the comparative bids of contractors on such materials as common brick and concrete, for example, vary so considerably as to indicate that some so-called estimates are merely guesses and not very good guesses at that. For example, we recently received bids involving a variation of several hundred dollars for the foundations of a $12,000 house where quotations were requested on the comparative cost of brick and concrete.

Below grade, and for a short distance above it, concrete, even where sand and gravel must be hauled from a considerable distance, appears to be the most economical material for a good solid foundation. There is a wide difference, however, in the cost for which different contractors can do this class of work. A man who is thoroughly familiar with this material and who owns a good power mixing machine can pour as high as 125 cubic yards in a working day, while another man less expert at building forms and employing hand labor for mixing, could only do the work at a much higher cost.

Where Northern work must be commenced very late in the fall, or in the winter, concrete, however, is out of the question, and the walls must be built of stone, brick, concrete blocks, or hollow terra cotta tiles. Walls of the latter as now made are not only sufficiently strong for a large house, if built of sufficient thickness, but are so designed as to render the walls of which they are constructed practically impervious to water and frost.

The accompanying drawing illustrates the manner in which all "through" mortar joints are eliminated when this form of hollow tile is used; the heavy, black lines between the tiles indicating the mortar. There are no vertical mortar joints whatever. This drawing also illustrates other essentials of a good foundation, such as waterproof cement plastering on the outside of the wall,

damp course forming a water-tight bond between floor and walls at the top of footings, agricultural tile footing drains, and framing over typical basement windows to bring the first floor as near the ground as is consistent with reasonably good natural lighting of the space below ground.

While it has long been considered good practice to apply a heavy coating of Portland cement plastering to the outer surfaces of basement walls (whatever their construction), such coating does not completely protect a wall from dampness, although it undoubtedly helps. Tar is often used, but it is not a permanent protection.

Within recent years, chemists have invented various waterproofing compounds for admixture with Portland cement, which are of undoubted merit and which appear to be quite effective in new work. As to whether the makers' claims for absolute permanency of their waterproofing preparations can be taken without a grain of salt most architects doubt, and some engineers deny.

Foundation walls which are thoroughly laid in good rich cement mortar, protected in stiff soils by footing drains and a fill against them of gravel or cinders to allow the surface water to pass quickly to the drain instead of forcing its way into the masonry should be dry enough when new to suit any one. As it costs little, however, to incorporate with cement mortar the waterproofing preparations above referred to, it seems well worth while to use them wherever water is to be kept out.

The architect's working drawings should show clearly the various depths as well as thicknesses of all parts of the basement and foundation walls. This statement may seem superfluous, but there are architects and architects, and there are some who trust to luck and later are sorry. I have seen more than one set of plans which did not indicate in any way on the elevations the levels and thicknesses of footings, basement and area floors and masonry underpining for areas, steps, terrace walls, etc. While these perhaps may be otherwise fully shown, if a sufficient number of wall sections be made in connection with the basement plan, the representation of all exterior work below grade by means of dotted lines involves very little labor and guards against oversight of certain

STUDY FOR A HOUSE ON A LEVEL SITE WITH FIRST FLOOR TWO FEET NINE INCHES ABOVE GRADE, AND UNBROKEN CONCRETE WATER-TABLE ON THE MASONRY WALLS OF THE BASEMENT. (See page 161.)

details, which, if not properly attended to, will cause trouble and embarrassment to the architect. Such as for example a sufficient depth in step and area foundations, not only to insure them from being heaved by frost, but against those settlements which sometimes occur when masonry supports outside the basement walls are not deep enough to go down to solid, undisturbed ground.

Contractors in excavating about the walls of a house often dig below the indicated bottom of step and area underpinnings, and if not watched, they will sometimes back-fill to this indicated level, instead of getting an absolutely solid and permanent bearing for all masonry supports.

Most houses have outside basement area steps. Great care should be taken that the footings to basement walls adjoining such areas be several feet below the area floor, otherwise the walls above may be lifted by frost sufficient to crack them.

While it is seldom necessary to run pipes or conduits in basement walls, the possibility, necessity or advisability of doing so should be considered and pipe chases provided wherever they will simplify the work of the plumbing and heating contractors.

Basement floors should be laid with a good pitch to some convenient drainage point, particularly in the furnace room and laundry. The building laws of some cities not only forbid basement floor drains, protected by water-sealed traps, but also prohibit screw-capped "clean-outs" or sewer connected outlets of any kind whatever, on the ground that if removed for draining a floor or for cleaning a clogged drain, the cap may be left off or loosely screwed in place, allowing sewer gas to enter the building. On a sloping site or wherever there is a sufficient outfall for the purpose, a separate system of floor drains may be safely installed leading to a dry-well at a low point away from the house, and will prove a great convenience, particularly in a laundry where there is often much slopping of water, and where the floor frequently needs a good washing out with a hose.

The writer has never liked the idea of sewer-connected floor drains, except in places where they were certain to be frequently flushed and traps kept sealed. A safe and fairly good substitute may be had by running the several floor drains to grated openings or to a small sump in the form of a settling basin, the clear water from which may be occasionally pumped or bailed out into a basement sink or laundry tub.

In planning the basement of the house of moderate cost, it is now necessary to provide almost every comfort and convenience found in the big house. The only luxury which is usually barred on the score of expense being a gas or coal stove heated laundry drier. A power washing machine, however, either gas or electric, is perhaps, more of a modern necessity where all the work is done by one or two servants than in the large establishment where an expert and husky laundress is kept constantly at work.

The laundry should be almost as well lighted as the kitchen, and will usually require large area windows on two sides.

In many suburbs there is no regular collection of ashes, and an outdoor ash pile is never a thing of beauty. Therefore, an ash bin in the form of a good sized space convenient to the furnace or boiler, enclosed with walls of brick several feet high over which the dampened ashes may be conveniently thrown with a shovel is a great convenience. Such a bin will hold an entire winter's accumulation of ashes, and with a hose connection adjacent to the furnace, so that ashes may always be wet before they are handled, as well as in the bin, this part of the basement may be kept fairly free from dust, and the entire bin full of ashes removed in a few hours at the end of the winter season. In large ash cans it may be passed out through an area window, which if need be may be specially built for this purpose. For large houses small cranes or lifts have been designed, operated by a crank and gear wheels at the basement level.

One feature of basement planning which is often slighted is the inside stairway from the first floor. In the middle class house where the owner and other

ROUGH SKETCH SHOWING HOW MUCH THE HOUSE SHOWN ON PAGE 159 LOSES IN APPEARANCE BY THE ORDINARY HIGH BASEMENT OF RUBBLE STONE, WITH PIERS AND LATTICE UNDER THE PORCH.

members of the family often use it, it should be at a point easily accessible, and not too far away from the dining room or front hall, so that it will not be necessary to go to the extreme end of the house in order to reach it. It should also be of good width and reasonably easy, with ample head room. All very true, but frequently forgotten by architects. It should also be well lighted and substantially built, with treads of oak, birch or maple.

In a house that is to be the home of growing boys, a basement work-shop, lighted by large sunny area windows is a most desirable feature, and there is usually space enough for it, made comfortable in the winter by the heat from uncovered pipes.

The basement is *not* a good place for a billiard room, except for a house on a hillside, where it can get plenty of sun and air. The summer dampness of the average basement tends to injure the cloth and impair the elasticity of the cushions of a billiard table.

The clear height of a basement depends somewhat on the size and proportions of the house. For a small building not over fifty feet long, seven feet four inches is enough. A long rambling house may require a clear basement height of at least eight feet in order that all piping for steam or hot water may have sufficient pitch from and to the boiler without interfering with comfortable head room. The practice of skimping the basement height of a small house and sinking a hot air furnace in a pit below the floor level is not a good one, as the owner, who is usually his own janitor, will always find the hot air pipes in the way of his head when least expected.

Equally important with sufficient height in the basement itself is the avoidance of unnecessary height above the general ground level. While the first floor of a bungalow may, and perhaps ought to be set seven or eight steps above the ground, five steps, or about two feet nine inches above grade is sufficient for the average house, insuring sufficient height for typical basement windows, and eliminating unnecessary outside steps.

No one feature of the small American house is more unpleasant and inconvenient than the excessive height of the basement above the ground, and no one feature lends more charm and "hominess" to the outward appearance of the aver-

age English house than the absence of any apparent basement.

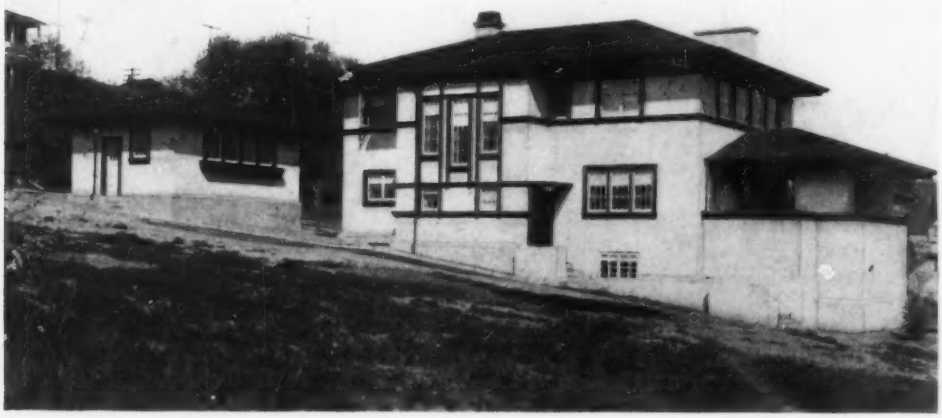
The speculative builder, of course, finds it cheaper, particularly in stiff clay soil, to save on the cost of excavating by building a high, exposed basement, with two stories above this, each higher than necessary, the whole crowned with a fairly steep roof.

He builds a house of stilted, box-like proportions which is anything but inviting and homelike. Until recently, it has also been the common practice of the speculative builder to carry the masonry walls of his basement to the first story level. Such an arrangement for a frame house is always rather awkward in appearance, and probably costs quite as much as the better method of finishing the masonry walls just above grade and supporting the frame walls at that level with a stone or concrete water table for work of the better class, and one of wood for houses of the cheaper types.

On a site which is approximately level and which can readily be brought to uniform grade at the building, without unpleasantly forcing the natural contour of the grounds, an unbroken water table or stybolate at grade lends an air of stability and repose to the structure.

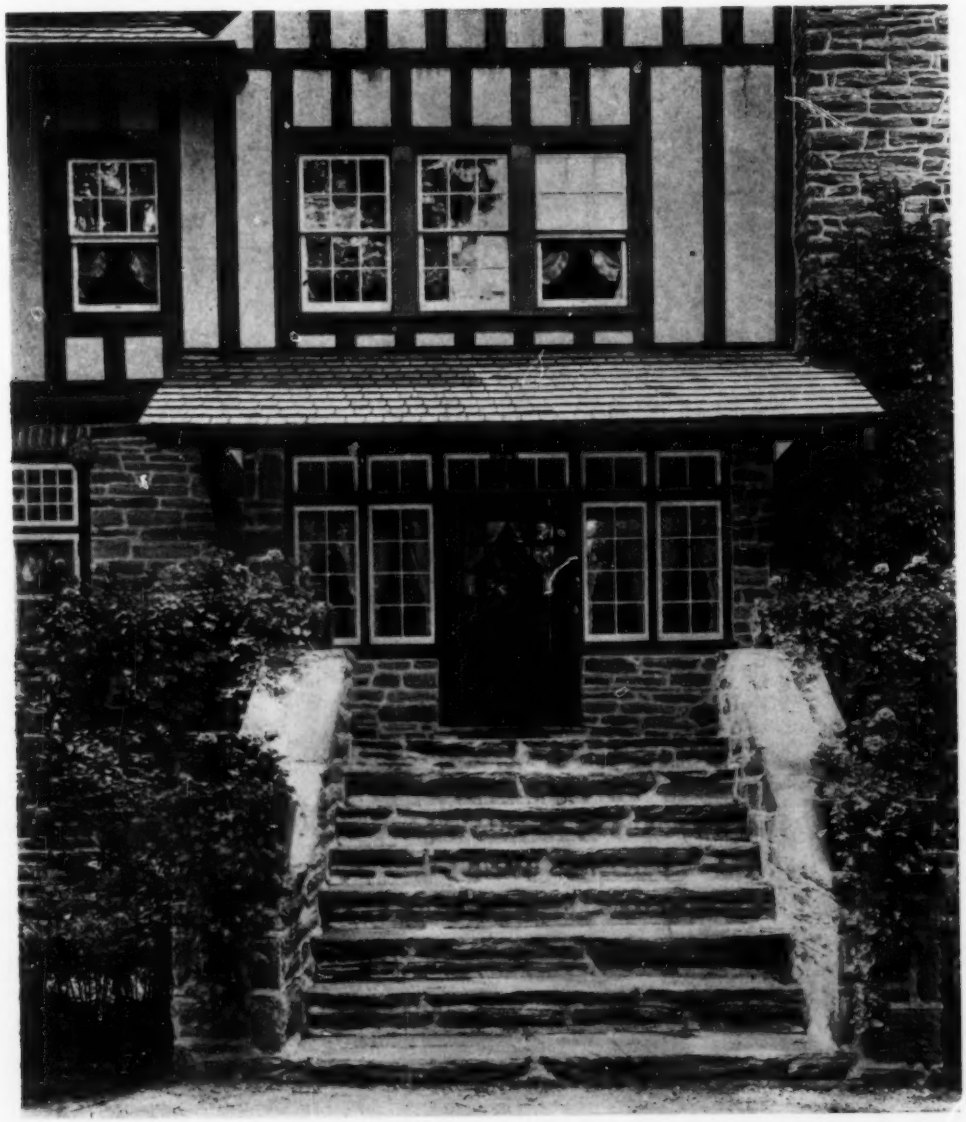
In designing a frame house for a sharply sloping or otherwise uneven site, the transition from basement to superstructure is difficult to manage agreeably. In the house at Seattle, illustrated herein, this difficulty has been overcome as well perhaps as was possible in view of the troublesome character of the site.

In designing a house in which the first story at least is of masonry, the necessity of this troublesome transition disappears, and the structure should have no apparent base line whatever, but should spring naturally from below the ground. If the need is felt in the walls of a strong horizontal line it may better be introduced at the level of the first story sills or window heads.



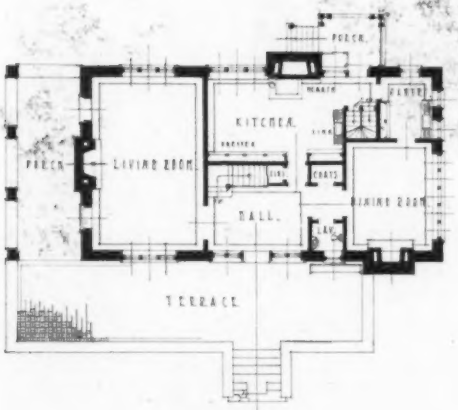
RESIDENCE OF GEORGE MATZEN, ESQ., SEATTLE, WASH.
Willatzen and Byrne, Architects.
Here is shown an ingenious handling of the solid concrete base on a steep hillside.

PORTFOLIO OF CVRRENT ARCHITECTVRE

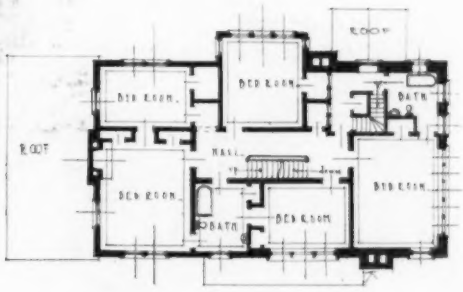


DETAIL—RESIDENCE OF VICTOR C. MATHER, ESQ., HAVERFORD, PA.
Duhring, Okie and Ziegler, Architects.

RESIDENCE OF VICTOR C. MATHER, ESQ., HAVERFORD, PA.
Duhring, Okie and Ziegler, Architects.



First Floor Plan.

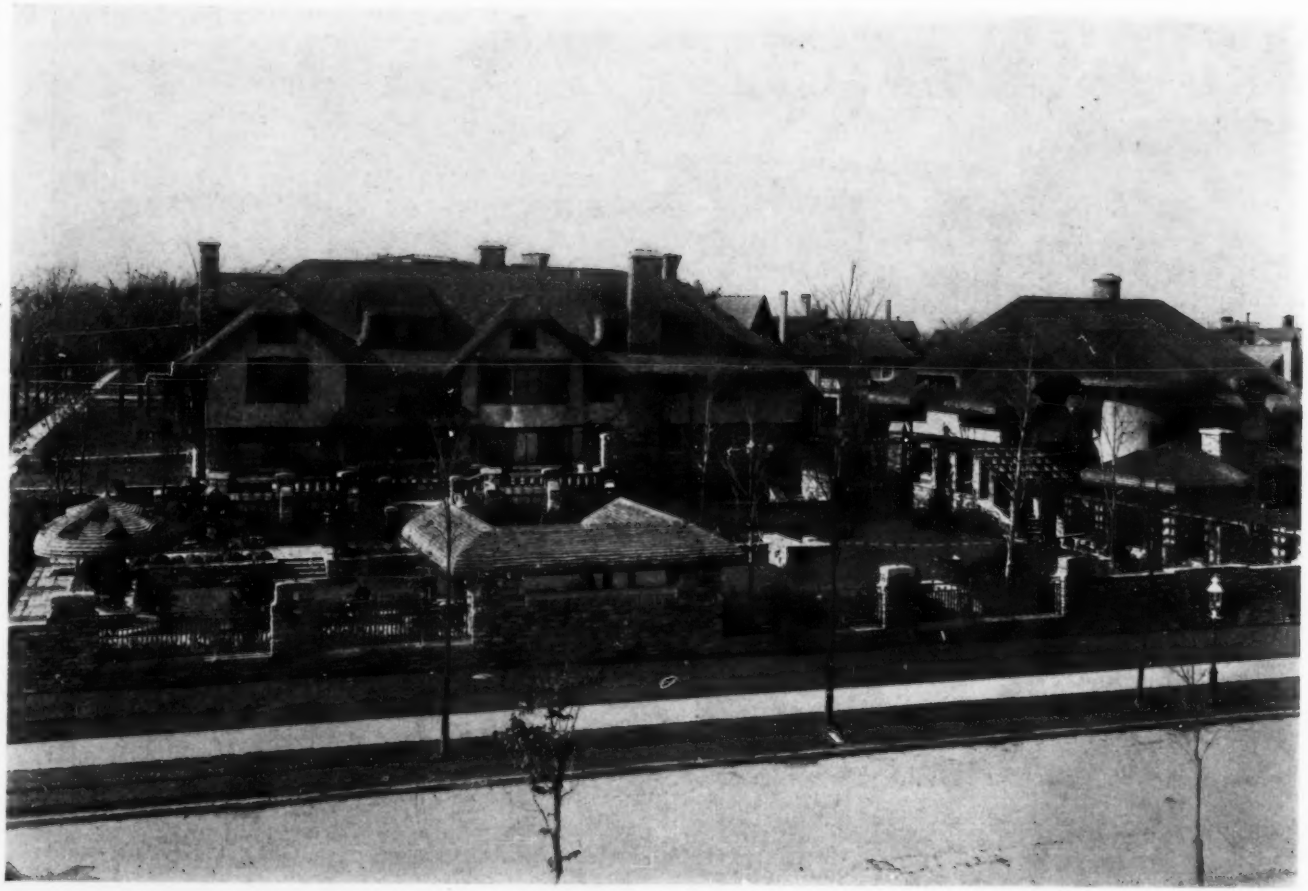


Second Floor Plan.

RESIDENCE OF VICTOR C. MATHER, ESQ., HAVERFORD, PA.
Duhring, Okie and Ziegler, Architects.

A HOUSE AT MT. KISCO, N. Y.
DELANO AND ALDRICH, ARCHITECTS.

RESIDENCE OF E. M. STATLER, ESQ., BUFFALO, N. Y.
ESENWEIN AND JOHNSON, ARCHITECTS.



RESIDENCE OF E. M. STATLER, ESQ., BUFFALO, N. Y.
ESENWEIN AND JOHNSON, ARCHITECTS.

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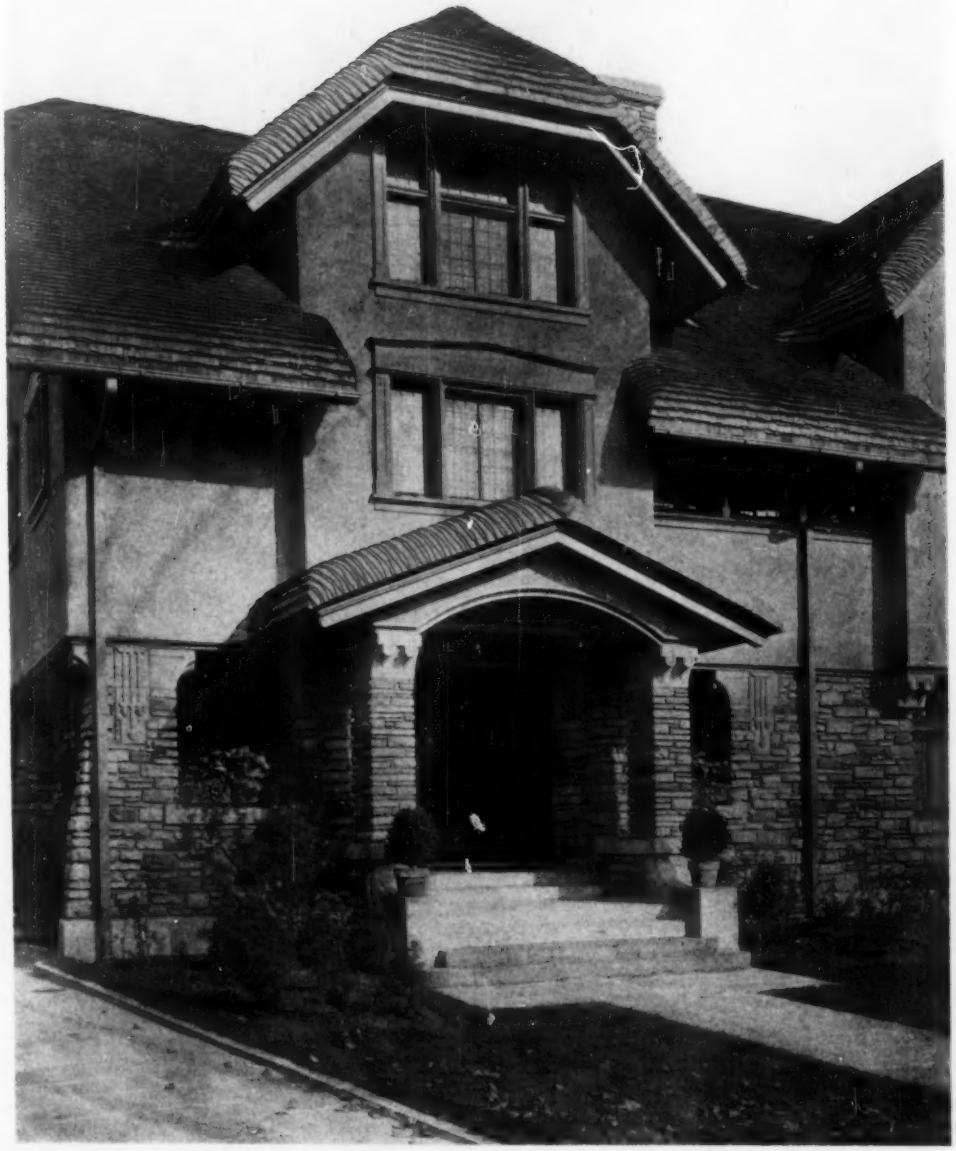
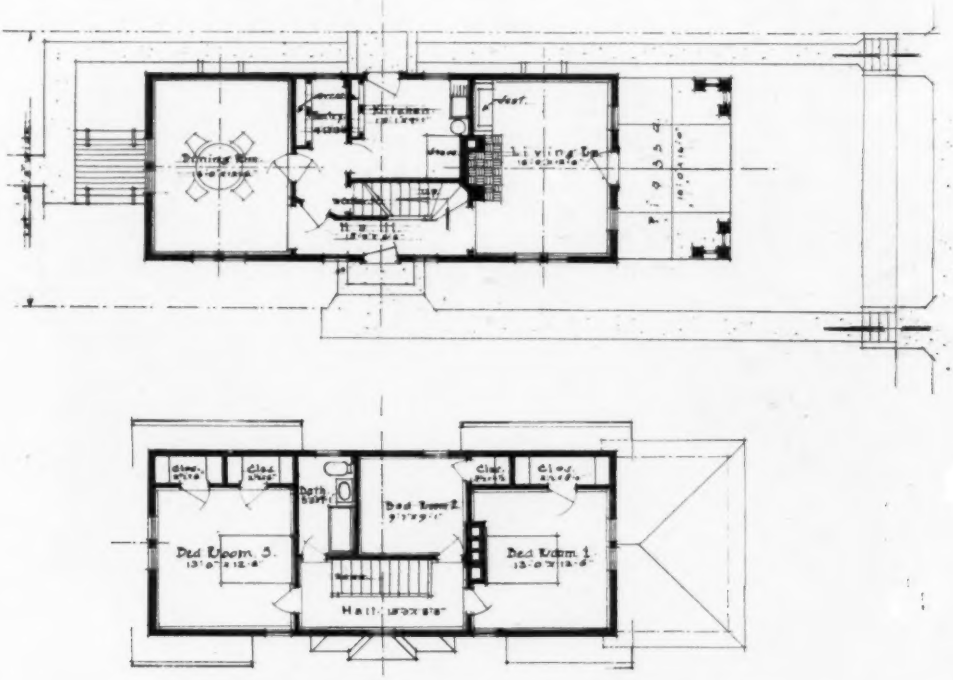


ENTRANCE DETAIL—RESIDENCE OF E. M. STATLER, ESQ.,
BUFFALO, N. Y. ESENWEIN AND JOHNSON, ARCHITECTS.

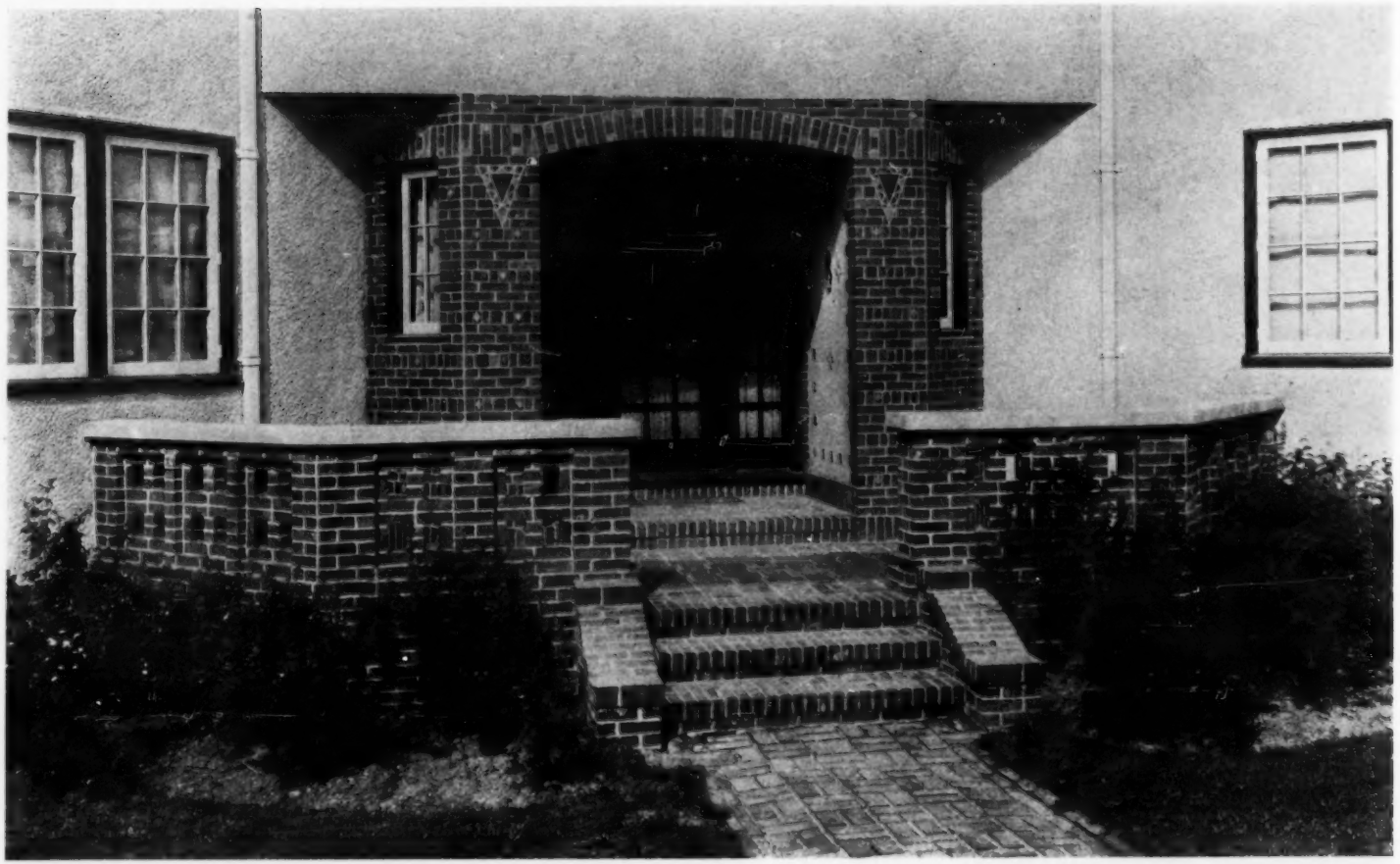
DETAIL—RESIDENCE OF E. M. STATLER, ESQ., BUFFALO, N. Y. ESENWEIN AND JOHNSON, ARCHITECTS.

The construction of this house is stucco on wire lath, the whole being built for $3,500.

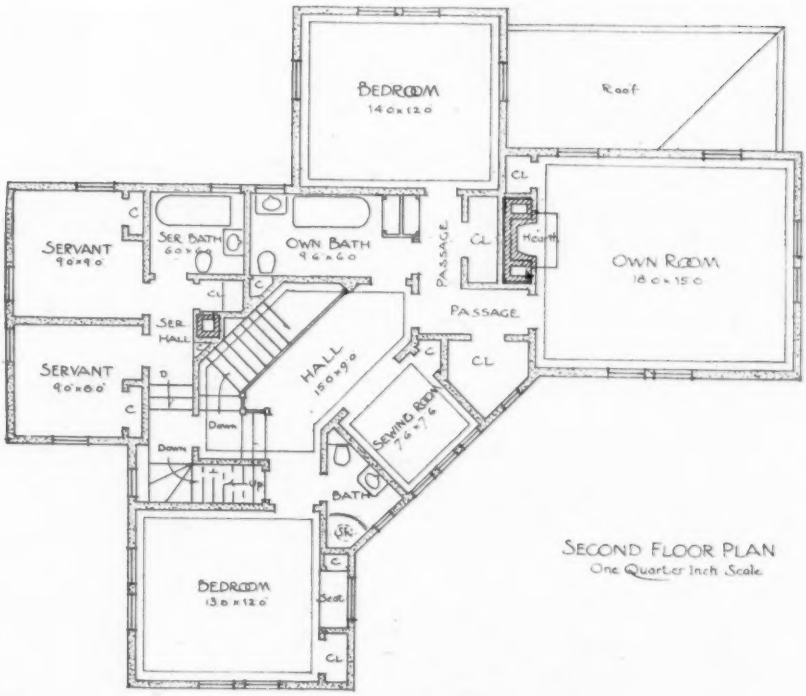


RESIDENCE OF D. ELLSWORTH SMITH, ESQ., TROY, N. Y.
Norman Baird Baker, Architect.

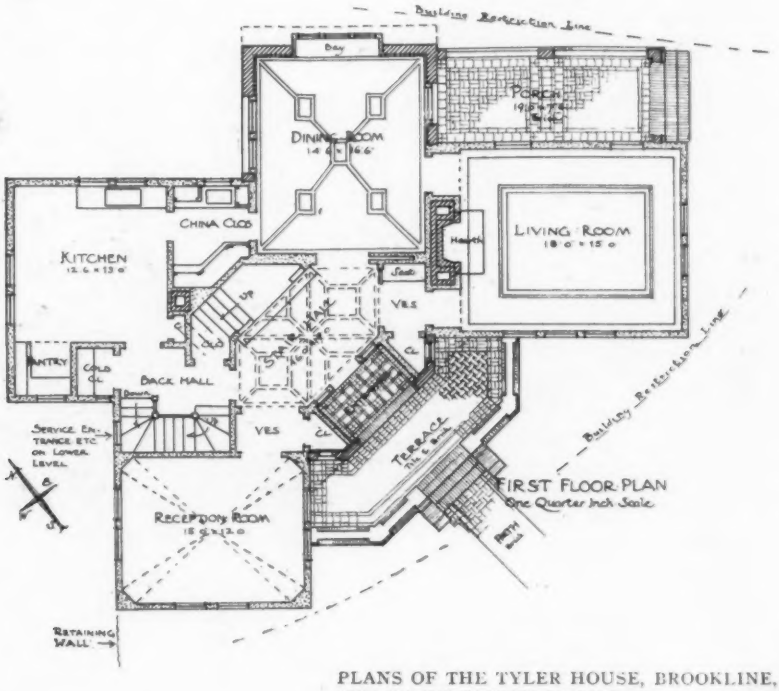
THE TYLER HOUSE, BROOKLINE, MASS.
FRANK CHOUTEAU BROWN, ARCHITECT.



THE TYLER HOUSE, BROOKLINE, MASS.
FRANK CHOUTEAU BROWN, ARCHITECT.



SECOND FLOOR PLAN
One Quarter Inch Scale



FIRST FLOOR PLAN
One Quarter Inch Scale

PLANS OF THE TYLER HOUSE, BROOKLINE, MASS.
FRANK CHOUTEAU BROWN, ARCHITECT.

ENTRANCE DETAIL—HOUSE AT KENSINGTON, L. I.
AYMAR EMBURY II, ARCHITECT.

A HOUSE AT WYNDMOOR, PA.
THOMAS. CHURCHMAN AND MOLITOR. ARCHITECTS.

THE ARCHITECT'S LIBRARY

It is the purpose of this department to keep the readers of the "Architectural Record" in touch with current publications dealing with architecture and the allied arts, describing not only literary, but practical values.

Colonial Architecture. Part I. Fifty Salem Doorways. By Frank Cousins, with an Introduction by Glenn Brown.

Perhaps the architects of this country will never cease to turn back for inspiration (and with a certain amount of reverence and sincerity) to the work of our early Colonial builders. Certainly it is to be hoped that this may be so, for not only is this type of architecture among the very few which we can legitimately call our own, but it is a type of remarkable intrinsic merit.

Among the most significant contributions to contemporary American architecture are those early buildings which were the result of an unsophisticated and conscientious study of pure precedent, and it is for this reason that a perennial interest may be said to exist among architects in all publications that place such buildings on record on the office shelves.

Mr. Ware's compilation of the "Georgian Period" was one of the most notable contributions toward the recording of photographs and measured drawings of fast-vanishing early American architecture, and it was followed by several other works of no less value. The most recent addition to the working library of the architect who interests himself in pure styles is the first portfolio of a series of large plate reproductions of Colonial architecture, from photographs made and collected by Mr. Frank Cousins.

The fact that there are no measured drawings of the examples illustrated is offset as far as may be by the clearness of the photographs and the large scale at which they are reproduced (7″ × 10″).

The introductory letterpress (which we could have wished were longer) is from the pen of Mr. Glenn Brown, the secretary of the American Institute of Architects, and conveys, in spite of its brevity, much interesting information regarding Salem and its architecture.

"The best work in Salem, Massachusetts," writes Mr. Brown, "covers three periods, from 1745 to 1785, clearly showing the influence of the publication of Batty Langley in 1740, a work extensively used in this country. The title of this work explains the character of its information, 'Country Builders' and 'Workmen's Treasury of Design,' or the 'Art of Drawing and Working the Ornamental Parts of Architecture.'" Today it cannot be said that the "Ornamental Parts of Architecture" are not "worked"—they seem in far greater danger of being over-worked. "In the period from 1785 to 1810 the character of the work reflects the influence of James and Robert Adam, whose books on interior decoration were published in 1783 and 1786. After 1800 we see the effect of Revett and Stuart's publications, which were issued in 1788 and 1794-1816, as in this period Greek in-

From "Fifty Salem Doorways."
THE PORCH OF 27 CHESTNUT ST., SALEM, MASS.

fluence is clearly reflected. While our early builders and architects made free use of these good publications, they were not simply copyists. They showed their individuality in design and their good taste in adaptation."

As those builders of 1745 to 1810 turned to their "Treasury of Design," so must we, to emulate their saliently sincere and lastingly beautiful achievements, turn for our inspiration to the monuments which they have left behind them. Everywhere in this country where examples of good Colonial work remain these are fast disappearing before the unexpected agency of fire or the no less obliterative devastation of "civic improvement." Perhaps in Salem and in Germantown, and possibly elsewhere a local veneration and appreciation will save the old houses.

Assuredly such records as Mr. Cousins' "Fifty Salem Doorways" are permanently valuable documents. Architecturally they preserve the form and historically, in the careful notes accompanying each plate, they preserve the history of each one of half a hundred examples of the best type of American architecture.

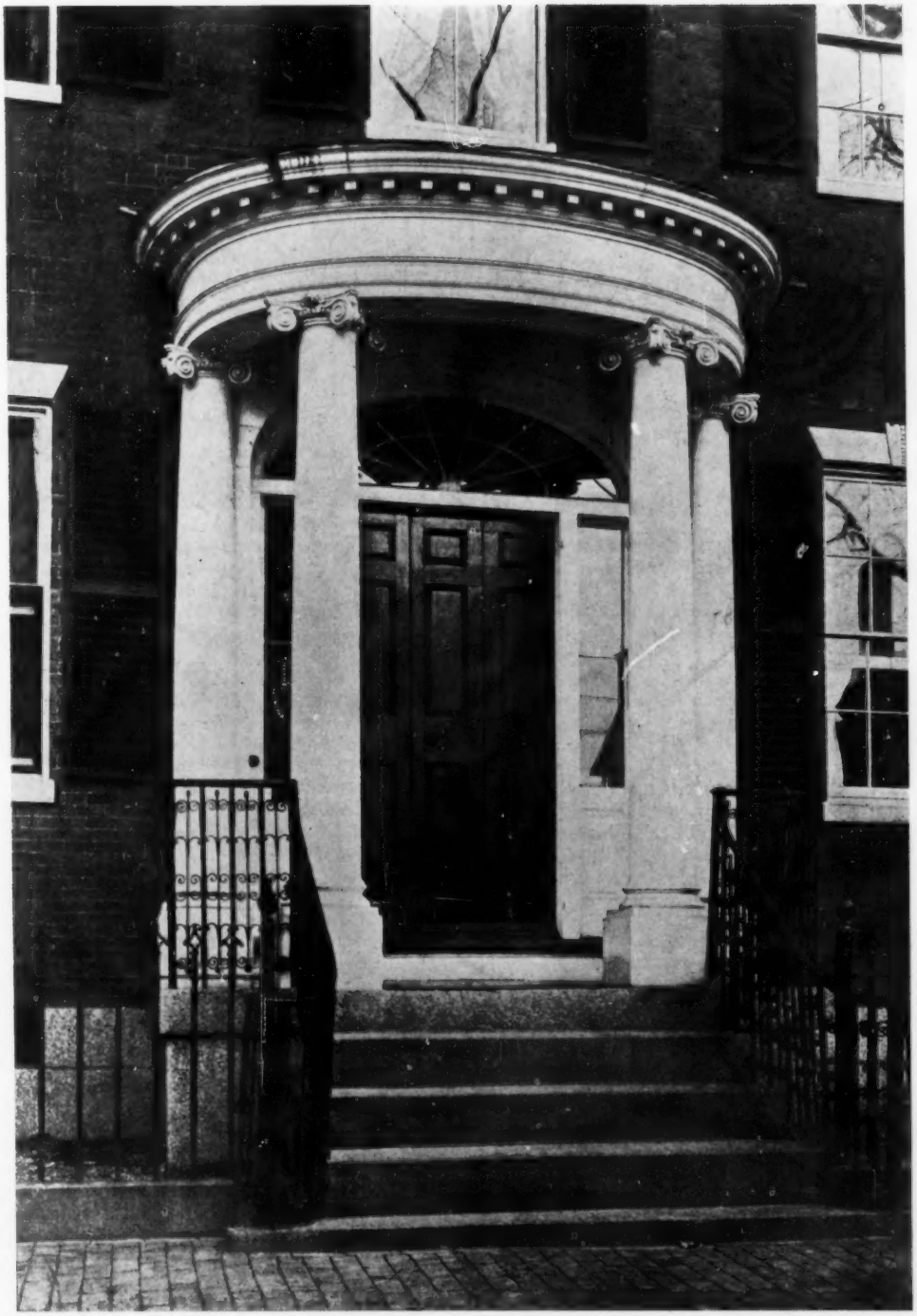
Early Christian and Byzantine Architecture. By E. A. Browne.

A good many years have passed since adapted Byzantine, under the powerful hand of Richardson, was a paramount style in this country, yet even recently there have been built several small churches which show that early Christian architecture has peculiar suitabilities for certain requirements.

If it is not the happiest treatment for public buildings or for domestic architecture (despite the remarkable legacies of Richardson) certainly the chapel at Columbia University, by Howells and Stokes, the little church under the shadow of the Metropolitan tower, by McKim, Mead and White, and St. Joseph's, at Babylon, L. I., by Riley and Steinbach, form conclusive evidence of the pleasing adaptability of Byzantine architecture for buildings of this type. And in the Judson Memorial, on the south of Washington Square in New York (an early McKim, Mead and White church) there is testimony in favor of the Romanesque.

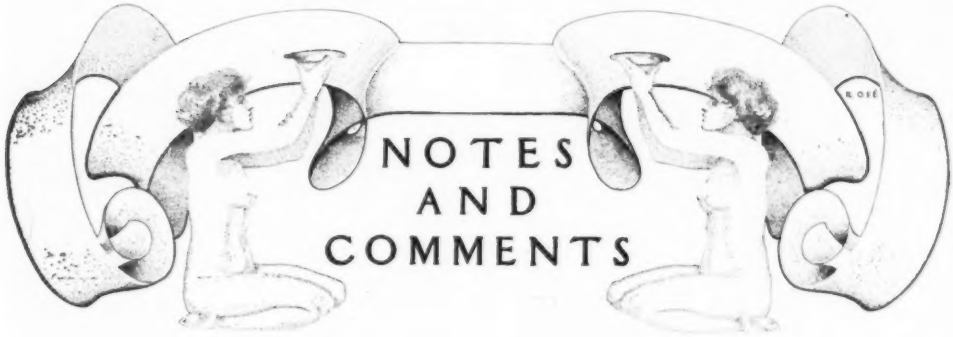
Here is a short, carefully written discussion of early Christian and Byzantine architecture which, despite little working information may be had from its illustrations, is yet immensely valuable if only as a careful discussion of the relation and inter-relation of Romanesque to Byzantine architecture.

There is certainly more in the book of use in the study than in the draughting room—it is the gentle and interestingly handled approach to a rather involved subject—it does not pretend to be scholarly, and if it is not exhaustive it is, on the other hand, by no means exhausting. The inception, development, architects and buildings of the style Byzantine are clearly discussed in one hundred and thirty-six pages and fifty illustrations, the latter making up, to some extent, for their lack of detail by their strong possibilities of suggestion.



From "Fifty Salem Doorways."

THE PORCH OF THE HENRY PICKERING HOUSE,
21 CHESTNUT ST., SALEM, MASS.



At the Institute Convention.

The following comprises a sequence of pertinent extracts from the opening speech of Mr. Walter Cook, of New York, at the 46th annual convention of the American Institute of Architects, Washington, D. C., December, 1912:

"The one thing that stands out in the history of the Institute is the constantly increasing interest of our members in its aims and its aspirations, and the constantly increasing unity in their views as to the best means of attaining these. Our one purpose is the encouragement of the best architecture, in every sense of the word; any advantage to the architects themselves—the improvement of their position in the community or of their material interests—follows as a matter of course; but this is not first in our minds. During the year which is nearly at an end a great deal has been accomplished especially in furthering that education of the public toward a correct understanding of what we seek, which is our first and most pressing necessity.

"If the results of these efforts of ours have come but slowly it is perhaps in part our own fault; for astonishing as it may seem, this public, or the best part of it, has listened to us with interest and good will, and in the great majority of instances has recognized the force of our arguments and the truth of what we have advanced. One example of this, and the most important one perhaps, has been the conduct of the competition for the Capitol of the State of Missouri. Beginning as it did with certain conditions laid aside, which were, as we believe, not for the best interest of the state, the Capitol Commission invited a delegation of the Institute, which had called its attention to these conditions, to visit them and confer with them. This conference was a most satisfactory one, and the result was a competition for this great public building conducted in a manner which was eminently judicious, and which bids fair to add one more to our great and beautiful monuments. And recently the Capitol Board has sent its thanks to the Committee of the Institute whose members advised with them. Certainly all our thanks are due to these enlightened gentlemen for the aid they have given to good art, and for the example they furnished to our whole country. And this is only one—the most prominent it is true—of many of such incidents in affairs great and small, which go to prove that after all our countrymen are broadminded and patriotic and only need to have the truth shown them.

"Unfortunately we have to record one experience of a quite different nature. The Tarsney Act, authorizing the designing of our government buildings by architects, has been repealed; and for the moment these great monuments of our country have been handed over to an official factory, to be turned out by the yard; for whatever the talent and the ability of the Supervising Architect of the Treasury, this is what must of necessity result. Nothing of this sort has ever happened in any civilized country, so far as I know, unless our own unhappy experiment of years ago may be considered an exception. It is quite unnecessary for me to speak of the so-called arguments which were employed in urging this repeal—the plea of an economy which has, we believe, been shown not to exist, and certain others which displayed such an almost ludicrous ignorance of the whole subject, that we can but shrug our shoulders and say with Figaro, that we hasten to laugh, lest we be obliged to weep. But if

any of our special guests of this year—sculptors, painters or authors—are unacquainted with them, we hope they will without delay read certain of the official documents which have been published, for they will find them most delectable. And they will certainly appreciate the logical sequence of this repeal—the establishment shortly of a special department of the government for the manufacture of all sculpture and decorative paintings, followed rapidly by still another, whose duty shall be to turn out all odes, sonnets or lyric verse which may be needed to celebrate the achievements of our enlightened Republic.

"However, we are hopeful and optimistic; we have faith in the sober second thoughts of our representatives in Congress; and we look forward with confidence to legislation in the near future which will not simply re-enact the Tarsney Act—for it had its imperfections—but will give us something even better for our country and its art.

"All of our experiences, be they victories or defeats, only serve to accentuate the need of which I have already spoken—the need to do all we can to enlighten our fellow citizens in those matters which are our special province; to awaken their interest and better their understanding of what we do and how we do it.

"As for the architectural work of our country and our time, to which we are devoting our lives, it moves on apace. Every day sees new and important buildings, and we admire and blame and criticize as the mood is upon us. It is very hard for us, who are so much in the thick of the battle, to see clearly and to give any calm-minded judgment upon it as a whole. But within a few months I have had the good fortune to talk with two fellow-architects of acknowledged eminence from across the water. Their verdict was one of enthusiastic praise for our achievements; and they made comparisons between what we are doing here and what is done in other countries, which were most flattering for us. So I think we are justified in some self-congratulation."

Report of Committee on President's Address made to and approved by the 46th Annual Convention.

The President in his address makes the comment that the significant fact in the history of the Institute is the constantly increasing interest of its members in its aims and aspirations, and the constantly increasing unity in their views as to the best means of attaining these. The status of the architectural profession is still ill-defined in many parts of the United States. The issues with which the architects have had to reckon are complex and are rooted in stubborn conditions. Environments most various have wrought upon the ideas and the ideals of the architects themselves. It would be difficult to exaggerate the untoward character of some of these environments. Some of us—perhaps most of us—have been so closely involved in puzzling and trying situations that we have failed to see the entire field in its proper perspective and some of us have been prone to take a somewhat pessimistic view of the immediate outlook for the profession. It is therefore a cause for congratulation to the Institute that its President, a man of wide experience, high ideals, and singularly temperate mind—has been enabled, amid all the perplexing questions with which the Board has had to deal, so to preserve his sense of proportion and his wise optimism that he can deliberately affirm the constantly increasing interest of the members in the aims and aspirations of the Institute and; through all the divergencies of opinions, can note a constantly increasing unity in the views of the members as to the best means of carrying out the high purpose of the Institute.

Your committee believes that the President stands on firm ground when he asserts that, during the past year, marked progress has been made in educating the public toward a correct understanding of what we seek. But in this connection your committee cannot forbear to lay still further emphasis on the fundamental truth—that a genuine solidarity of opinion in the profession itself as to professional ideals is an indispensable pre-requisite to a proper recognition of status in the eyes of the public. The architects must themselves analyze and decide questions of ethics as between one another and as between themselves and the public with dispassionate forethought and with an eye single to the highest interests of the profession and of the entire community. The first step toward the education of the community by the architects must be the education of the architects themselves.

The poise of mind of your President is equally in evidence in his reference to the repeal of the Tarsney Act, which he treats as a disagreeable episode to be viewed philosophically rather than as a tragic finality calling for fierce invective. Viewed largely, man and his governments and institutions are but a passing show; and, if the tides of a democracy are sometimes destructive, we do well to remind ourselves

that only in a society capable of change is there the possibility of progress. A generation of new law-makers—like a generation of new children—has newly to be educated. The Institute's work is cut out for it. It hardly requires that we recommend a resolution instructing the President and the Board of Directors to take action in the premises. We venture to usurp the authority of this convention and to advise the President and the Board of Directors that it is the sense of the Institute that the President and the Board of Directors should, at the earliest time, take steps to prepare or to cause to be prepared and, in due time, to submit to the proper Congressional Committees a bill for an act that shall not only replace the Tarsney Act but shall,—as your President has said,—"give us something even better for our country and its art."

"Credit to Whom Credit Is Due."

In addition to the "Canons of Ethics" issued by the American Institute of Architects, it is valuable to publish an additional motion put forward by the St. Louis Chapter of the Institute regarding published statement of authorship due to the profession in connection with reproductions of work.

In the Architectural Record of April, 1912, there was published an illustration of the reredos of Christ Church Cathedral in St. Louis, of which the architects were Tully and Clark, and, their names being omitted, and that of a Mr. Caldwell, as designer, being printed, the St. Louis Chapter of the American Institute of Architects appointed a committee of three to inquire into the matter.

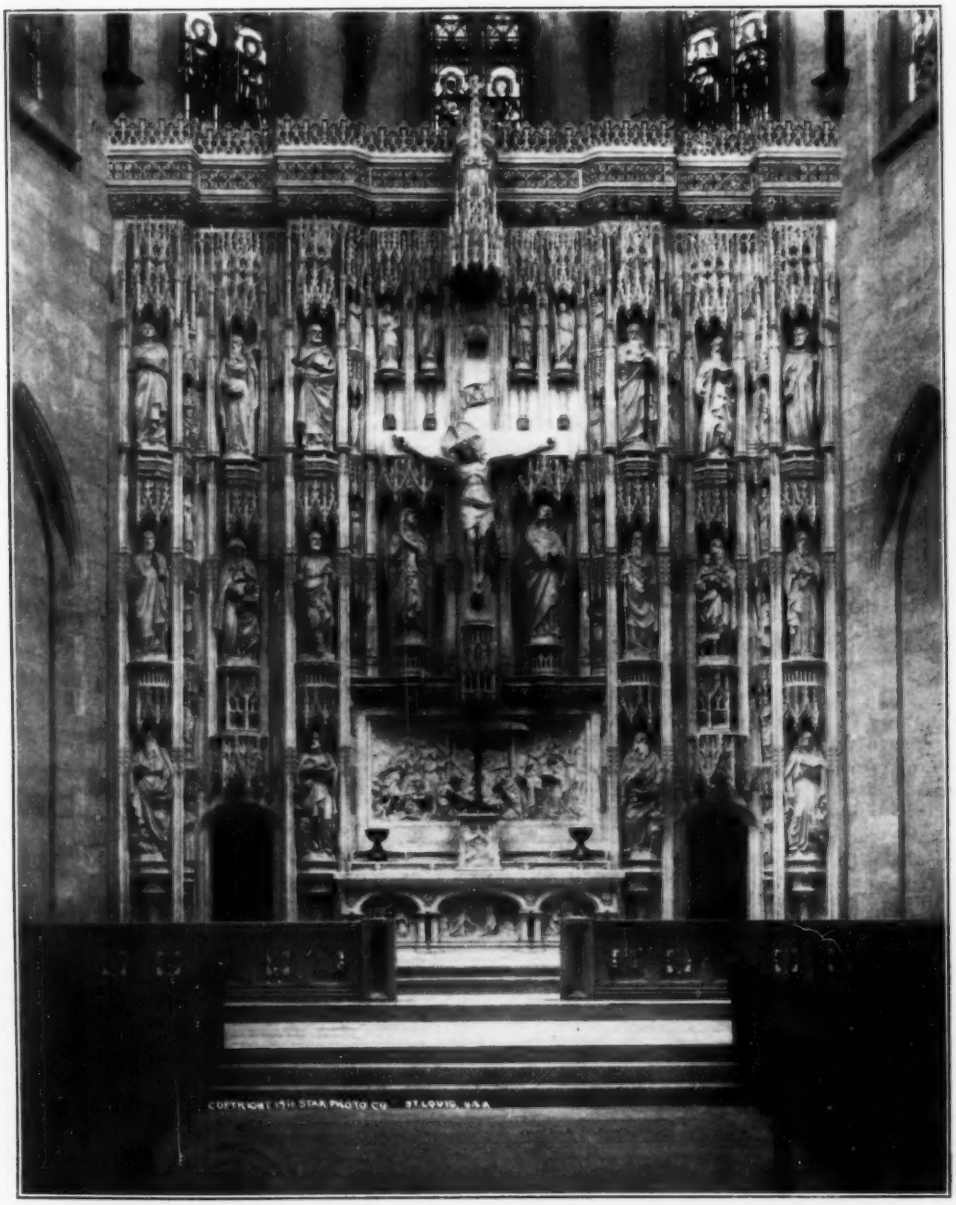
The following extracts from the report are printed herewith, as given:

"After a series of conferences with Messrs. Tully, Study and Caldwell, your committee reports as follows: Messrs. Tully and Clark were the architects employed by the Church Committee on Building to execute the work. Mr. Caldwell was employed in the capacity of a draftsman to carry out the design for the tower, already formulated by Messrs. Tully and Clark several years before. That Mr. Caldwell should assume under these conditions that he was responsible for the design of the tower is to be regretted. That Mr. Study should assume that Mr. Caldwell was the designer without a more careful investigation of facts as they existed, of verification of information he received from various sources is to be deplored, and that any member of our Chapter should write an article on the work of a fellow architect and purposely omit his name (as architect) your committee feels is a gross breach of etiquette, and shows a most unfraternal spirit. That Mr. Caldwell's name was mentioned as designer of the reredos is acknowleged to be a publisher's error. * * * Your committee recommends the adoption of the following resolution: Be it resolved: It shall be considered unethical on the part of any member of this Chapter (who may be a contributor to any magazine, or called upon to prepare a paper for publication) who may fail either intentionally or unintentionally to give credit therein to the architect commissioned to execute the project or building described in such an article; and such member shall lay himself liable to censure from this Chapter."

This would seem an excellent motion, and it is to be hoped that its local adoption by the St. Louis Chapter may result in its wider adoption by the Institute at large, in view of the fact that editors and publishers must necessarily rely very largely upon the accuracy and conscientiousness of their contributors. Furthermore, any motion which might tend toward the uniformity and standardization of credits printed in periodicals and elsewhere must certainly be welcomed by editors and publishers, who, as a class, perhaps, can be said to deplore mistakes and inaccuracies even more than do the victims thereof.

Control of Parkway Buildings.

To persons not living in Philadelphia, perhaps the most striking feature of the recently issued 1912 report of the City Parks Association is a paragraph which describes the development which is expected along the new parkway stretching from the City Hall to Fairmount Park. Stating that the plans for the central building of the Free Library, for which about $800,000 is available, are well under way; and that the plans for the Art Museum are being prepared, the note continues: "Locations for the Central Manual Training School, the American Philosophical Society, and the Philadelphia College of Pharmacy have been set aside or condemned. Other institutions, like the Franklin Institute, the Penn-



From The Architectural Record, April, 1912.

THE REREDOS IN CHRIST CHURCH, CATHEDRAL, ST. LOUIS, MO. TULLY AND CLARK, ARCHITECTS.

sylvania Academy of the Fine Arts, and the Pennsylvania Museum and School of Industrial Art, will probably erect buildings along the Parkway at one point or another. Public buildings, like Law Courts, have been proposed." The very obvious comment is added that in order to produce a harmonious and beautiful whole there is necessary some control of the general architectural appearance of all the parkway buildings. The Report suggests that this control be placed in the hands of the Art Jury. This Jury corresponds to the bodies known in most other cities as Municipal Art Commissions.

This whole report of the City Parks Association is of much interest and value, its eighty or more pages offering an inspiring view of a great city's opportunity and obligation for development. "The resources of a city," it observes, "fortunately increases with its needs * * * Any plan to be carried out in twenty-five years, for which the present capacity of the city is sufficient, is to be judged, because of that fact alone, as probably inadequate." Interesting also is the following paragraph: "The head of a great banking corporation presented a shrewd attraction to depositors, when at the corner of Broad and Chestnut streets, on the costliest land in the city, he erected, not an office skyscraper, but a noble and beautiful building of classic architecture. Has that investment paid? Ask not that question, but rather how many times has it overpaid. Of all the advertisements that have ever been displayed in Philadelphia, none more effective exists than that supremely beautiful building."

The American Institute Elections.

At the 46th annual convention American Institute of Architects, December, 1912, the election of officers resulted as follows: President, Walter Cook, New York (re-elected); first vice-president, R. Clipston Sturgis, Boston, Mass. (re-elected); second vice-president, Frank C. Baldwin, Fredericksburg, Va. (re-elected); secretary and treasurer, Glenn Brown, Washington, D. C. (re-elected). Directors for three years: Burt L. Fenner, New York (elected); C. Grant LaFarge, New York (elected); H. Van Buren Magonigle, New York (elected). Auditor, Robert Stead, Washington, D. C., and the election of Fellows resulted as follows: Wm. D. Austin, Boston, Mass.; W. Dominick Bones, Cleveland, Ohio; Henry Clay Carrel, New York; Walter B. Chambers, New York; Clinton Day, San Francisco, Cal.; Wm. Adams Delano, New York; L. C. Holden, New York; Walter G. Peter, Washington, D. C.; Arthur Wallace Rice, Boston, Mass.; Charles A. Rich, New York; Horace Wells Sellers, Philadelphia, Pa.; Frank E. Wallis, New York; Arthur F. Woltersdorf, Chicago, Ill.

The honor of "Fellow" of the American Institute of Architects, to quote from the by-laws, "is conferred upon a member who is a citizen of the United States, who, in the opinion of an authorized Jury of Fellows, shall have notably contributed to the advancement of the profession in design, construction, literature or education."

Fire Exits.

Some interesting, if disquieting, testimony on the subject of fire escapes has been given this Fall to the New York State Factory Investigating Commission, in an official statement by its fire expert, H. F. J. Porter. Mr. Porter characterized the usual fire escape as a fire trap. The contracted space in which many fire escapes must be installed, the tendency to cut them off some distance from the ground in order that burglars may not use them for entrance to the building, the frequent difficulty of putting the lower story of the fire escape into position, and its overcrowding or breaking, conspire, in his judgment, to make this a most unreliable avenue of escape. Neither had he much greater regard for the usual inside stairway. Such a stairway is usually the same size, or nearly the same size, at the lower floors as at the upper, although each floor is connected with it, and is supposed to empty its human contents upon it. Consequently jams occur. "The reason for this jam is that the irregularly shaped bodies of the people interlock and the friction of their clothing aids the wedging action so that there is an actual arch formed across the stairs, and the greater the pressure behind it the tighter it holds." Mr. Porter's criticism, however, was constructive. He stated that he put most faith in the fire wall, exending from cellar to roof, with fireproof doors on each floor. The principle involved, he pointed out, was the same as that of the collision bulkhead of the ocean steamer. It develops a "bisectional building," offering a horizontal instead of a ver-

tical escape, and making a fire drill unnecessary. Of course, as he remarked, there is nothing new about this device. It already exists in buildings everywhere, and its value as a fire stop to protect property has long been known. "Its availability as a fire escape has not, however, been recognized, and it is this feature which I have advanced as affording the only means of safe escape from fire to the occupants of crowded floors. This is a new feature in architecture, as applicable to department stores, schools, theatres and residences as to factories."

A Housing Competition.

The Illinois Chapter of the A. I. A. has drawn up, at the request of the City Club of Chicago, a program for a competition for plans for laying out a typical residence area on the outskirts of the city of Chicago. Three prizes, for which the money is given by Alfred L. Baker, president of the City Club, will be awarded. These amount to $300, $200 and $100, and in addition honorable mentions will be given. The drawings are to be delivered at the office of the City Club of Chicago by noon of March 3rd, and they will be passed upon by a jury of five, chosen by a joint committee of the Chicago City Club and of the Illinois Chapter of the A. I. A. The competition is held in connection with the Housing Exhibition which is to open under the auspices of the City Club on March 7th. The "Program" recites that while the well known Chicago Plan deals especially with the broad structural features of the city framework and contemplates a long period of time for its execution, "the unoccupied land on the outskirts of the city is being rapidly built up with homes without that intelligent direction which is necessary for the good of the city and its population. Recreation centers and parks are not being located until population has made them absolutely necessary, and then at large cost." It is hoped that this competition will not only extend information and awaken increased interest as to the wise sub-division of residence tracts, but that some of the plans may be actually adopted.

The assumed site is a quarter-section of land located on the level prairie about eight miles northwest or southwest from the business center of Chicago. The tract is without trees or buildings. The property surrounding it is assumed to be subdivided in the prevailing gridiron fashion. Street car lines on two sides of the street are assumed to furnish transportation to the business section in about forty-five minutes, and some large industrial plants are located half a mile or so from the site. The plans are to provide for a population of not more than 1,280 families for the quarter-section. Each competitor is to submit two drawings: a plan drawn to a scale of 80 ft. to the inch; and a bird's-eye perspective of the area, or of some portion of it, in its proposed developed condition. Both drawings are to be rendered in pen and ink with or without monotone wash. In addition, each competitor is to submit a typewritten statement fully explaining his plans. The competition is open to anyone who cares to enter it. Full particulars may be secured from George E. Hooker, civic secretary, The City Club, Chicago.

Praise from Achille Duchene.

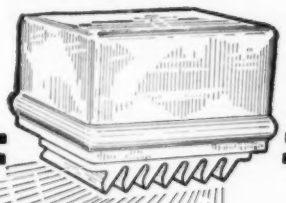
Achille Duchene, who has had several interesting commissions in this country, has lately been here again to look over the possibilities of a 1,000-acre tract in California, upon which he and Willis Polk, of San Francisco, are collaborating for the creation of a residence splendidly set for Mrs. Frank Carolan of San Francisco. On the eve of his return to Paris, a few weeks ago, M. Duchene was interviewed by several of the New York newspapers. He praised American architecture, or at least the best of it, for its good lines and its appreciation of dimension, scale and harmony. In these respects, indeed, he thought New York led the country so far as he had observed. Speaking of the Grand Central Terminal, one of the newspapers quotes him as saying: "It is a tremendous thing for your art when you accomplish such great efforts as I saw in that building with nothing but simple lines." He praised extravagantly the view of New York as one comes up the Bay. The foreigner approaching New York, he said, "experiences a sensation more wonderful, more peculiar, more impressive to an inexpressible degree than he gains entering any other port in the world. Naples, Salonica, the Golden Gate of your California, are truly wonderful. There are many ports where the mountains, the valleys, the sky and the sea all appeal with their beauty. But it is the beauty created by God. Coming into New York—ah, then is New York indeed beau-

tiful. It is so vast, so Herculean. Whatever of line is in error is lost. One is aware only only of its vastness, of its entirety and its grandeur. And this is a grandeur built by men. I cannot hope to describe the sensation when one approaches New York from the sea for the first time. What must be the impression of the immigrant as he lands in New York! How must he feel as he stands gazing down on your vast avenues teeming with the life of a nation greater than he has ever known! He does not know such streets where he came from. And as he gazes aloft at the lighted windows of your vast buildings wherein men are working like bees in a hive, each window representing a unit of energy which might occupy a whole building in his native land, then must he wonder if he can ever become a part of this, a success in its midst. London in no manner represents this aspect." He thought it strange that in the smaller cities front gardens were unenclosed, and he thought the costly residences on Fifth avenue, New York, failed to typify the real architectural progress of the country. He found that best represented in the great railway stations, the high commercial buildings and the model industrial plants. He had a good word, also, to say for the common effort among American architects "to work for the good of their community as well as for their clients." This he said had "tremendously impressed" him.

National Housing Conference.

From the strictly professional point of view of the architect, the most interesting feature of the National Housing Conference, held in Philadelphia last month was the vigorous protest against unreasonable building restrictions. This was voiced primarily by Grosvenor Atterbury. In the sessions preceding that in which Mr. Atterbury spoke, enthusiastic social workers and philanthropists had had much to say about the local restrictions that would give our cities model housing. Mr. Atterbury's theme was Garden Cities. Wisely assuming that his hearers were somewhat familiar with the purpose and nature of these communities, and with his own work in the building of Forest Hills Gardens for the Sage Foundation, he launched at once into a discussion of the difficulties which beset a builder of garden cities, or of any type of inexpensive housing, because of building restrictions which are not always consistent or always reasonable. "Why," he said, "should there be one standard for concrete in New York and an entirely different one in St. Louis?" E. H. Bouton, of Baltimore, who has had much practical building experience, followed Mr. Atterbury with a very earnest appeal to the somewhat shocked social workers, to remember that all the economic waste involved in unreasonable building restrictions came upon the tenant in the imposition of a higher rent. Some attempt was made to answer Mr. Atterbury's criticisms, but throughout the rest of the Conference it was clear that he had made an impression which could not be wholly effaced. The second conclusion of the Conference which was of practical professional interest to architects was a widely felt spirit of protest against the deadly monotony of the Philadelphia rows of little houses—mile upon mile exactly alike—which have so long been held up by many social workers as the best solution of the cheap housing problem yet reached in America.

It was significant that last month's Conference in Philadelphia was only the second National Conference on Housing which has been held in this country, and yet that more than two hundred delegates were registered from outside of Philadelphia. As the local interest was extensive, the auditorium in which the meetings were held was filled at every session. The delegates were taken on two trips of inspection. The morning of the first day was devoted to the worst examples of housing which Philadelphia could show, and the morning of the second day to the best examples. The most valuable paper of the Conference was that by Andrew Wright Crawford, whose subject was, "Property Divisions, Lot Depths and Height Regulations." Taking occasion to point out the connection between housing and city planning, he noted that the former stands for efficiency of the individual and the latter for efficiency of the community. He emphasized the importance in both respects of the factor of transportation. Renewal by the Conference of the familiar attack on the tenement was a foregone conclusion, particularly as the meeting was held in Philadelphia. So also was the statement, which was voiced by Mr. Ihlder, of a belief that on a fair basis of comparison, "the small house furnishes larger and better accommodations per dollar." Of all the sessions, there were few that were so interesting or valuable as one that was not on the program or officially recognized. This was a hastily called meeting, at which plans were studied, criticized and explained by those actually engaged in building. This is a feature which future housing conferences should adopt.



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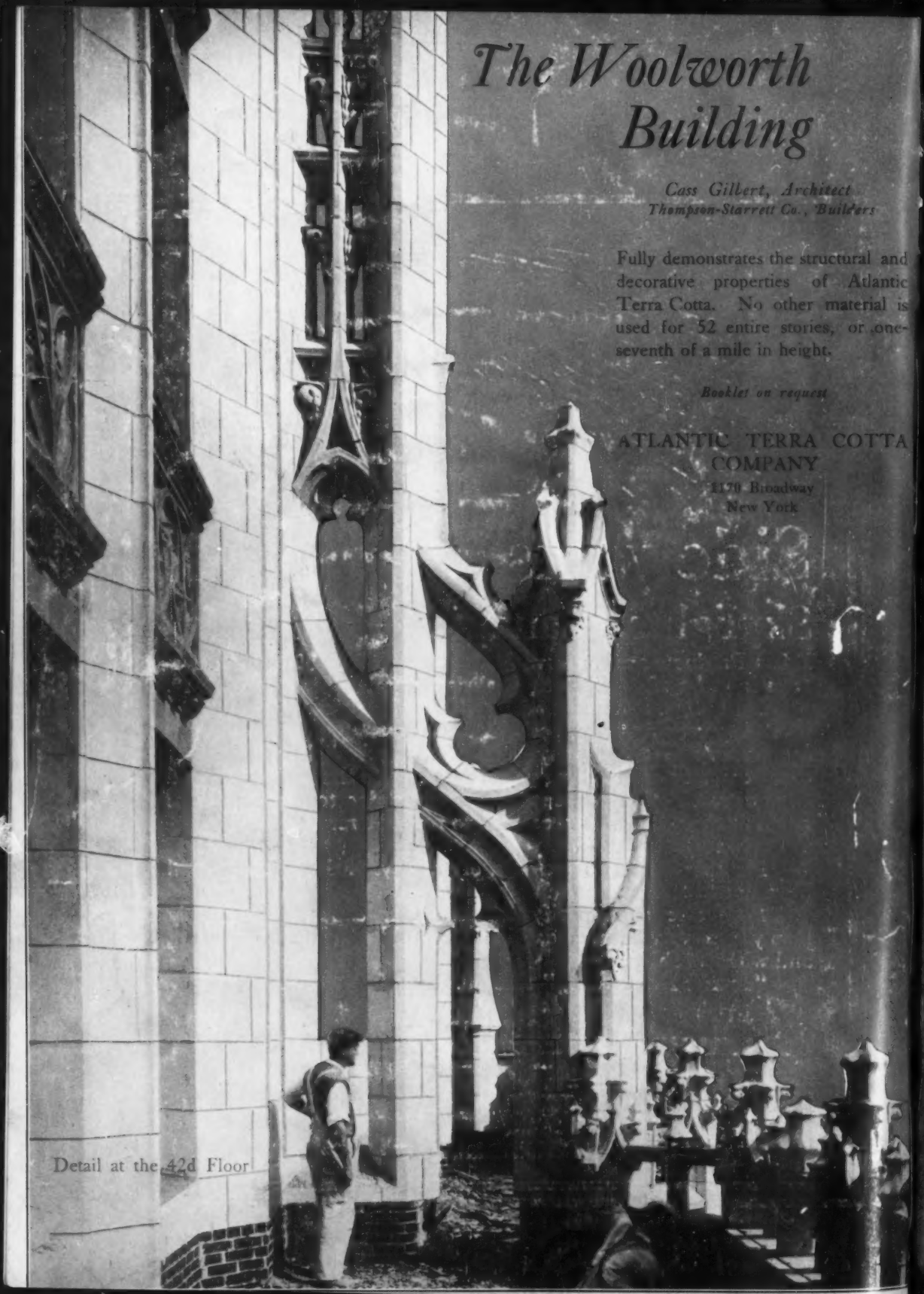

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